Deceptive Identity Performance: Offender Moves and Multiple Identities in Online Child Abuse Conversations

*EMILY CHIANG and TIM GRANT

*E-mail: chiange@aston.ac.uk

This article provides a case study of deceptive online identity performance by a convicted child sex offender. Most prior linguistic and psychological research into online sexual abuse analyses transcripts involving adult decoys posing as children. In contrast, our data comprise genuine online conversations between the offender and 20 victims. Using move analysis (Swales 1981, 1990), we explore the offender's numerous presented personas. The offender's use of rhetorical moves is investigated, as is the extent to which the frequency and structure of these moves contribute to and discriminate between the various online personas he adopts. We find from eight frequently adopted personas that two divergent identity positions emerge: the *sexual pursuer/aggressor*, performed by the majority of his online personas, and the *friend/boyfriend*, performed by a single persona. Analysis of the offender's self-describing assertives suggests this distinctive persona shares most attributes with the offender's 'home identity'. This article importantly raises the question of whether move analysis might be useful in identifying the 'offline persona' in cases where offenders are known to operate multiple online personas in the pursuit of child victims.

INTRODUCTION

This study concerns the case of a man convicted of sexual offences against children after pleading guilty to 45 charges related to grooming and blackmailing young females online, and distributing indecent images of children over a 14-month period between 2009 and 2011. The offender was in his early 20s and befriended both male and female victims before coercing them into providing indecent images of themselves and/or engaging in other sexual activities via webcam. Such practices are widely seen as forming part of the processes of sexual grooming and sexual extortion (O'Connell 2003; Whittle *et al.* 2013; Açar 2016; Kopecký 2016, 2017). In communicating with his victims, the offender used multiple online personas, which we identify by the unique online usernames and varying characteristics as created by the offender. This article investigates the offender's deliberate and deceptive identity performance by analysing 20 transcripts from instant messaging (IM) interactions between the offender and 20 different victims (each transcript shows an unedited

reproduction of an online interaction over a period of time with a single victim. The term 'interaction' is used to describe the entire online engagement between the offender and the victims, and each interaction may involve multiple conversations in which the offender cycles through a number of personas, causing the victim to believe she is conversing with several individuals). The specific aims of the article are twofold. First, we wish to consider how the moves observed in this particular data set compare with themes reported in other research in online child sexual abuse (CSA) conversations, particularly because this study is one of a small minority making use of naturally occurring data concerning conversations between an offender and genuine child victims. Secondly, we seek to determine the offender's use of rhetorical moves as a resource for identity performance, and explore the differences and similarities in move use across the 17 personas adopted by the offender in these abuse interactions in terms of move frequency and structure. In doing this, the research hopes to offer useful insights into deceptive identity performance specifically in the context of online sex abuse conversations and show how such linguistic analysis might usefully contribute to police investigative strategies.

Online CSA

As online CSA has gained increasing prominence in public consciousness since the 1990s, it has also become an expanding area of academic inquiry. Linguistic research in the area is still in its infancy, and thus far has largely focused on the communicative processes involved in an act widely termed *online grooming*, which is understood here as an Internet-facilitated practice by which an individual 'prepares a child, significant adults and the environment for the abuse of this child' (Craven *et al.* 2006: 297). Noted linguistic strategies of online grooming include rapport building, assessing risk, desensitizing the child to sexual topics and sexually explicit material, and planning further contact either online or offline (O'Connell 2003; Marcum 2007; Olson *et al.* 2007; Ospina *et al.* 2010; Williams *et al.* 2013; Kloess *et al.* 2014; Black *et al.* 2015; Kloess *et al.* 2017; Chiang and Grant 2017; Winters *et al.* 2017). While these grooming strategies are largely agreed upon, only rarely are they derived from analysis of naturally occurring conversational data between offenders and genuine child victims. In fact, possibly the only work doing this to date comes from Kloess *et al.* (2017), with other research tending to rely on online sexual abuse conversations which are facilitated and published online by an American vigilante organization known as Perverted Justice, whose aim is to identify child sex offenders by 'training' adult 'decoys' to pose as minors and converse with them online, although the organization does not specify what such training might entail (see perverted-justice.com) (as in Williams *et al.* 2013; Black *et al.* 2015; Chiang and Grant 2017 and Winters *et al.* 2017). The current article addresses this gap by comparing the rhetorical moves seen in conversations between an offender and his genuine child victims with the grooming strategies noted elsewhere in the literature.

A related but even less well-understood practice is that of sexual extortion, a form of blackmail involving threats to disseminate indecent material (images or videos) of a victim, to coerce that victim into complying with escalating sexual demands, which might involve further indecent material (Shannon 2008; McGuire and Dowling 2013), or sexual engagement either via webcam or off-line (O'Connell 2003; Shannon 2008; Eneman *et al.* 2010; CEOP 2013). Sexual extortion is most often only briefly mentioned in CSA research, and is usually referred to as one element in the wider process of grooming (Webster *et al.* 2012; Whittle *et al.* 2014; Pranoto *et al.* 2015 (but see Kopecký (2017) for the most in-depth treatment to date). The case discussed here exhibits elements of both sexual grooming and sexual extortion, and often the interplay of the two. We describe these and related activity types as CSA conversations.

Identity performance

We investigate identity here from the constructionist perspective commonly held in contemporary identity research in the social sciences, seeing identity not as a fixed, internal 'core self', but as fluid and constructed, or *performed*, through various modes of expression, the most flexible being linguistic expression (Joseph 2004; Bucholtz and Hall 2005). This concept stems from Goffman's early sociological work which drew parallels between the performances by theatre actors on stage with performances by social actors in everyday interactions (see Goffman, 1956). Part of Goffman's (1956) work which seems particularly relevant to this study is the proposition that self-presentation involves both the intentional *giving* as well as the unintentional *giving off* of information about ourselves as we interact with others. Bucholtz and Hall (2004) make a distinction between identity *performance*, which accounts for instances of '…highly deliberate and self-aware social display' and linguistic *practice*, their preferred term for habitual, everyday linguistic activities which might be 'less than fully intentional' (p. 380). Here, we retain the term *performance* in reference to both self-aware and habitual linguistic expressions of identity, although the distinction is acknowledged and demonstrated throughout discussion of the offender in question. Generally, we draw most centrally on Bucholtz and Hall's (2005) interactional framework for identity analysis, which importantly accounts for the performance of both 'micro' identity positions—low-level, temporary interactional roles such as, for example, 'engaged listener' or 'information seeker' taken up by conversation participants—as well as the 'macro' identity positions like age, gender, and social class.

The notion of identity *performance* is particularly interesting in our data, as the offender in question created and adopted a range of online personas deliberately manipulating macro aspects of identity such as gender and ethnicity when engaging with victims. This process was of course facilitated by the online environment, which allows for the purposeful and selective presentation of certain aspects of identity (Tagg 2015). The idea that we can invent brand new online identities for ourselves has generally been dismissed

(Herring 1993, 2000, 2003; Tagg 2015), so it has only rarely been discussed in the computer-mediated communication (CMC) literature as an objective of an interactant. Grant and MacLeod (in press) however discuss the various resources and constraints which influence undercover police officers' abilities to assume other identities, such as the individual's sociolinguistic history and cognitive resource, as well as the type of speech activity in which the individual is engaged. These issues raise the interesting question of the degree of linguistic variation used across the different personas by the offender in our data. Bucholtz and Hall's (2005) partialness principle suggests that identity construction may be deliberate and self-aware, or unconscious, or anywhere in between—this case demonstrates identity performance at the extreme end of the spectrum, highly self-aware and deliberately deceptive.

Identity and rhetorical moves

Chiang and Grant (2017) used move analysis to illustrate the rhetorical goals of groomers and how these are structured in grooming conversations from Perverted Justice data. Here, we expand on this work by investigating in conversations between an adult and actual child victims how the rhetorical move (Swales 1981, 1990) is employed by conversation participants as a resource for indexing specific identity positions throughout the sexual abuse interactions in question. We focus particularly on the offender's identity performances but do so in the context of the interactive performances of each child victim.

Swales' (2004: 228–9) idea of a move is based in the genre analysis of monologic texts and is a 'rhetorical unit that performs a coherent communicative function' and may encompass multiple lower-level steps or strategies that work towards achieving the move (Swales 1981, 1990; Bhatia 1993). Boon (2013, 2015) uses the idea to examine CMC texts in the non-forensic context of (IM) conversations between students and their tutor. In Chiang and Grant (2017: 7), we examine moves in online grooming conversations identifying, for example, a specific move used by online groomers—*Assessing and Managing Risk*. This was achieved through lower-level strategies which include: making inquiries about the target victim's home life, references to inappropriate behaviour, and deflection of topic control.

Macagno and Bigi (2017) too have demonstrated the usefulness of the move as the basic analytical unit of dialogue. Unlike genre theorists, these authors take their concept of the move from argumentation theory literature about 'Types of dialogue' (Macagno and Bigi 2017: 149). Using Grosz and Sidner (1986: 177) who define a dialogue move (in much the same way as the rhetorical move is described above) as a 'discourse segment' which 'fulfill[s] certain functions with respect to the overall discourse' and whose utterances 'serve particular roles with respect to that segment', Macagno and Bigi argue that the dialogue move provides an important middle ground for interpreting linguistic interaction, as it falls between general contextual descriptions and very detailed syntactical analyses.

Our view is that the move is not only a useful analytical tool for demonstrating communicative goals in interaction but also for the investigation of identity performance. Bucholtz and Hall's (2005) third principle of identity performance posits that linguistic forms index (or point to) particular identity positions. In a study on the discursive identity practices of 'nerds' in an American high school, Bucholtz (1999) demonstrates students' linguistic resources for identity performances on a range of levels, including discoursal, lexical, syntactical, and phonological. It is our assumption that the rhetorical move, and lower-level strategies serving the move, also provides a resource for identity production, lying somewhere between discourse-level resources and the lower-level resources of lexis, syntax, and phonology. We therefore examine how the move frequencies and move structures observed across the different personas adopted by the offender might be used to index broadly different identity positions, both in terms of macro positions such as gender and ethnicity, and also in terms of temporary micro roles and positions of conversational interaction.

METHODS

Data

The data, obtained from a UK police force, comprise an initial set of around 2,500 chatlog transcripts between the single offender and each separate target victim. From these, 20 transcripts over 100 lines long were randomly selected. The shorter transcripts were often fewer than 10 lines and mostly represented unsuccessful attempts at communication. Transcripts are referred to as T1, T2 …T20; victims are referred to as V1 … V20; and personas (all of which are the same offender) as P1 … P17.

Table 1 details the 20 transcripts comprising the data for interactions with 20 victims. The selected interactions vary between 100 and 1,188 lines in length and last between 1 and 344 days in terms of the first and last contact by the offender to the victim's IM account (this duration includes ignored contact attempts).

All victims in the sample purported to be female and living in the UK, and 16 of 20 stated their ages as between 12 and 15 years with the further four victims not stating their age. Victims' identifications may be unreliable—one victim states both that she is 15 and 12 years old at different points—however, as webcams were typically used in the interactions, and as the offender was convicted of crimes against underage girls, we cautiously accept that interactants are likely to be under 16 years old, the legal age of sexual consent in the UK.

Table 2 illustrates the 17 individual IM personas created and used by the offender across the 20 transcripts, and the associated identity characteristics asserted by the offender. Each persona was identified by a unique email address shown at the beginning of each new IM session. Most personas were White males between 15 and 20 years old, but the offender also assumes

Table 1: Transcript characteristics

Transcript	Length (lines)	Contact duration (days)	Number of personas assumed
T1	526	5	3
T2	659	72	4
T3	511	33	4
T4	406	79	5
T5	243	1	2
T6	177	16	3
T7	264	34	5
T8	312	299	9
T9	323	52	4
T10	1188	45	3
T11	151	2	1
T12	220	87	1
T13	133	74	2
T14	106	119	3
T15	201	98	2
T16	144	107	4
T17	100	10	2
T18	209	344	3
T19	148	26	3
T20	101	19	1

personas of Black and mixed-race males and females, where these females express either lesbian or bisexual orientation. It is important to note that there are points of potential inconsistency within some personas, for example, P15 and P16 identify as mixed-race with some victims and not others.

Procedure

The move analysis was based on Chiang and Grant's (2017) paper in which full methods and reliability testing are described. In the broader project it has been shown that there are high levels of agreement between coders regarding the moves and also that two coders will independently identify the same sorts of moves in these texts.

Both participants' contributions in all transcripts were coded according to the most likely communicative function(s) before semantic themes were developed and then organized into higher-level moves, and the move labels were revised and refined in response to the data. The analysis was of the data in these chatlogs, so the move *Assessing accessibility* found in Chiang and Grant

Table 2: Offender persona characteristics

Persona	Stated identity positions	Number of victims approached	Total utterances (lines)
P1	Male, 17	12	642
P2	Male, 16/17, White	6	214
P3	Male, 17, White	5	37
P4	Male, 19/20, White, model agency representative	4	155
P5	Male	3	14
P6	Male, 15	4	360
P7	Male	2	29
P8	Male	2	19
P8	Male	1	36
P10	Male	1	2
P11	Male, 17, mixed-race	6	307
P12	Male, 19, mixed-race	4	703
P13	Male, 18, Black	1	22
P14	Male, Black	1	20
P15	Female, mixed-race, bisexual	6	128
P16	Female, mixed-race, lesbian, bisexual	5	274
P17	Female	1	6

(2017) was not used. In this data utterances pertaining to this move were adequately accounted for by another move termed *Assessing likelihood and extent of engagement*. There is, however, and perhaps unsurprisingly, substantial overlap between the final set of moves found in these data and that in Chiang and Grant (2017). As our focus is not on issues of genre, following Samraj and Gawron (2015), we do not label moves as being obligatory or optional (as do Swales 1990; Bhatia 1993). Instead, moves were analysed as being *typical* or *atypical* of a persona or of the offender overall, where 'typical' is defined as appearing in over half of the examined interactions.

Our focus in this article is on the offender's identity performances and so the victims' moves are generally not described in detail here. Responses are however classified as 'Desired', 'Mixed', and 'Undesired', and that these classifications sit alongside the range of other victim moves. The 'Desired' move category was developed by Boon (2015), was applied to victims' responses to the offender's advances, and clearly requires the coder to try and understand and interpret the offender's objectives in the interactions.

The opening move structures from the 'approach phase[s]' of each interaction were considered in detail to explore some of the structural differences

and similarities between the interactions of each persona assumed by the offender. The approach moves are a particularly interesting area of investigation because here we can see how the offender presents the various personas to the victims in the very first instance. These early moves are arguably less influenced or constrained by victim ongoing responses than later moves where both participants have a greater shared linguistic history (Grant and MacLeod, in press), or where their language might be more likely to have converged. Narrowing the focus thus enables a clearer comparison between personas and allows for consideration of those personas which make only a small number of contributions.

Move-maps (Chiang and Grant 2017) provide colour-coded visual representations of the interactions and were produced to aid the structural analysis. Additionally a multidimensional scaling (MDS) scatter plot was created using statistical programming language R, and used to visualize the distance between personas.

Further to this we also considered the veracity of the statements the offender used to describe each persona. All self-describing assertives (such as 'I'm 19') were extracted and formulated into questions about the offender. These questions were collated and passed onto the police force providing the data who then marked each claim as true, false, or unverified. This enabled a further comparison between the personas.

Ethics

The transcripts were accessed under a data-sharing agreement between the authors and the police force that provided the data. This agreement provides for the secure storage of data using encrypted devices, anonymization of all transcripts, and for the psychological support of researchers. The agreement and research were also approved by the University ethics committee.

ANALYSIS

Description of moves

Nineteen moves were observed across the data set, together encompassing 158 lower-level strategies (there may be overlap in the strategies used to achieve each move, for example the strategy of requesting an image might function as a part of moves identified as *Rapport*, *Assessing and managing risk*, or *Immediate sexual gratification*). Thirteen moves were used by both the offender and at least one victim, and are thus considered 'shared' moves, although the strategies involved in these moves may be offender- or victim-specific. Shared moves include *Greetings*, *Maintaining conversation*, *Meeting planning*, *Reprimanding*, and *Sign-offs*, which are not further discussed in this article; and *Rapport*, *Assessment*, and *Sexual moves*, which are discussed in more detail below. In contrast to these shared moves some moves are only ever used by the offender. *Assessing role* for

example, represents inquiries about the preferences of the victim and is used to gauge the sort of persona most likely to be 'successful' in pursuing the victim. The offender-only moves *Overt persuasion* and *Extortion* are discussed below. As described above, victims' contributions were additionally coded as *Undesired, Mixed*, and *Desired*.

Descriptions of prominent shared moves

Rapport is used to establish and maintain friendships and relationships. A major strategy of rapport building involves inquiring about and sharing personal information about interests, relationships, and daily life, for example 'asl?' [age, sex, location], 'wuu2' [what you up to?]. Other rapport-building strategies include giving (and positively responding to) compliments, webcam or image requests (often made through a specific IM client function), expressing emotions (verbally or with emojis), phatic expressions, politeness strategies, and 'banter'. Offender-only strategies of rapport building include denying sexual motivations and retracting sexual questions or requests, for example 'lol im joking'. A victim-only strategy is justifying or mitigating negative responses, e.g. 'im busy atm [at the moment] lol im always busy soz [sorry] x'. In addition *Sexual rapport* is used to establish and maintain a positive, sexually oriented relationship. A prominent strategy within this move is inquiring about and sharing sexual history and preferences, for example 'ever been with a girl?', 'i wear like really skimpy outfits haha'. Other strategies include sexual compliments and webcam or image requests and compliance. Offender-only strategies include checking age-gap approval, for example '18tht 2 old' [18, is that too old?] and retracting sexual questions or requests. No victim-only strategies were observed as part of *Sexual rapport*.

Assessment moves include *Assessing likelihood and extent of engagement* in terms of general communication, sexual engagement, or offline meetings. Strategies include inquiring about and sharing sexual history, preferences and practices, and sexualized requests, for example 'show me ur tmmy then?' as well as webcam or image requests, and proposing hypothetical scenarios. *Assessing criteria fulfilment* is used to gauge how far an interlocutor meets particular preferred criteria such as age, physical appearance, clothing, and ethnicity and includes webcam or image requests. *Assessing and managing risk* is a particular and more complex assessment move which can include identity verification strategies and acknowledging the potential for identity deception, for example 'who ever your picture is, is cute but i know your like 75...' The strategies involved reflect the fact that the types of risks faced by offender and victims are varied and specific to each participant. The offender's main risk, ultimately, is being caught and apprehended for child sex offences. His main strategies for *Assessing and managing risk*, correspondingly, involve identity concealment, such as refusing webcam or image requests and giving excuses for this, for example 'dont work on this laptop'. As well as this, he sometimes appears to try and mitigate the seriousness of sexual questions or comments,

either in effort to not scare aware the victim or possibly to support later claims that his assertions were not genuine (see Chiang and Grant (2017) for a fuller discussion on this.

The victim assessment of risks has a slightly different focus, although it is likely there is some overlap where identity concealment is concerned. Some prominent victim-only strategies for *Assessing and managing risk* include inquiring about the offender's identity, for example 'who is this' and motives and actions, for example 'whyy did uu add me?'. Such strategies indicate the victims' awareness of the general risks involved in speaking to strangers online. This offender however poses a more direct and specific risk, where he attempts to extort imagery or contact from victims by threatening to disseminate previously obtained pictures or videos of the victim. In this situation the victims' strategies can include denying the offender's claims of possessing illicit material, justifying negative responses to requests, and on occasion complying with the offender's demands. Other strategies include bargaining, for example '[webcam] wnt work. Ill meet you instead and do whatever', warning of police involvement, expressing fear or vulnerability, for example 'im scared for my life here...', 'im fuking 12 ffs [for fuck's sake]', and begging.

Sexual moves are separated into *Initiating sexual topics, Maintaining/escalating sexual content*, and *Immediate sexual gratification*. Although victims do not have legal agency in these interactions, they employ sexual moves in interactions including on occasions *Introducing sexual topics* (see Supplementary Figure S2). A further sexual move, *Maintaining/escalating sexual content*, can extend interest to a victim's friend or family, for example '... u and ya mom shud let me come take sum photos?' and normalizing sexual topics and requested acts, for example 'girly friends do it alot'. *Immediate sexual gratification* is used to achieve or satiate immediate sexual arousal. As well as some previously mentioned sexual strategies and webcam/imagery requests, this move largely involves direct sexual suggestions, requests, and commands, for example 'lift ya top ...'.

Description of prominent offender-only moves

Overt persuasion and *Extortion* are used to explicitly influence a victim's decision-making or actions and are important in recognizing the overarching interactions as an exercise in persuasion and power, as the offender convinces each child to present indecent material of themselves and or engage in sexual acts on camera. *Overt persuasion* accounts for the more obvious instances of where he attempts to push victims into some sort of compliance, rather than using more subtle influence techniques like rapport building. Strategies include using direct commands and threats to leave the conversation, e.g. 'get ur cam workin... or im goinn', as well as seeking sympathy and material offers, and also minimization, for example 'lol its only girly fun', and presenting opportunities to interact with the offender as scarce, for example 'im moving to america in 3 weeks: ('. *Extortion* is even more directly coercive and typically involves threats, which can be direct, for example '...ill just
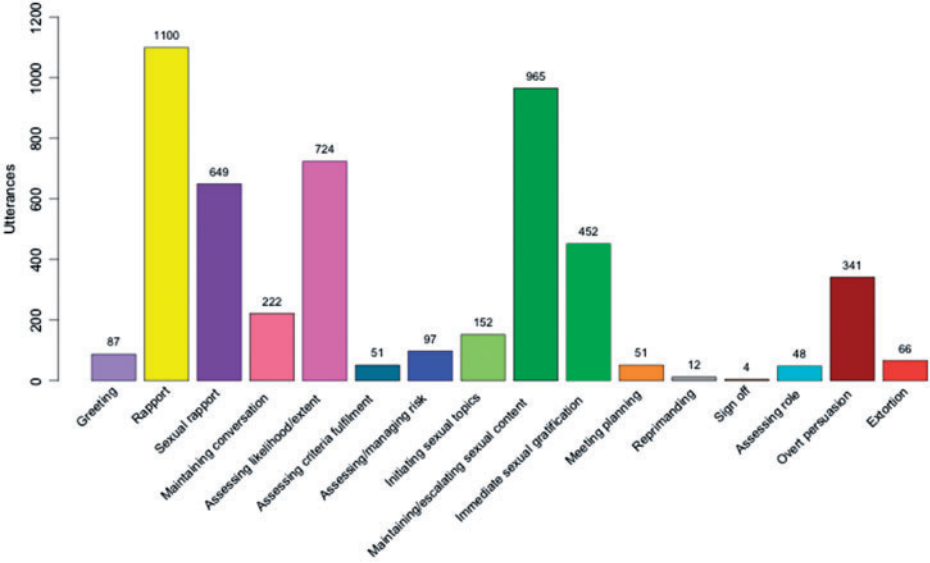
Figure 1: Frequency of offender moves across 20 interactions

send the pics/vid to all ya contacts'; indirect, for example 'got the video'; or non-specific, for example 'ill fuck u around'. Other strategies include stating 'contractual' terms, for example 'u got 30 seconds [to start your webcam]'; and victim-blaming, for example 'just remember u caused this...'.

Frequency of moves

Figure 1 shows the frequency of the offender's moves across the 20 transcripts: *Greetings, Maintaining conversation, Assessing criteria fulfilment, Assessing and managing risk, Immediate sexual gratification,* and *Overt persuasion* appear in over half the interactions and are therefore considered typical of the offender. Atypical moves include *Meeting planning, Reprimanding, Sign offs, Assessing role,* and *Extorting.* This offender generally is presenting as an individual interested in online sexual interaction with his victims and who will use overt persuasion and sometimes extortion to achieve this but also has some interest in planning offline meetings.

Move frequency by persona

Some personas have a low utterance count and are difficult to comment on in terms of what might be typical performances. This can be seen in the Supplementary Figure S1. The nine personas contributing fewer than 50 utterances are discounted from this portion of the analysis.
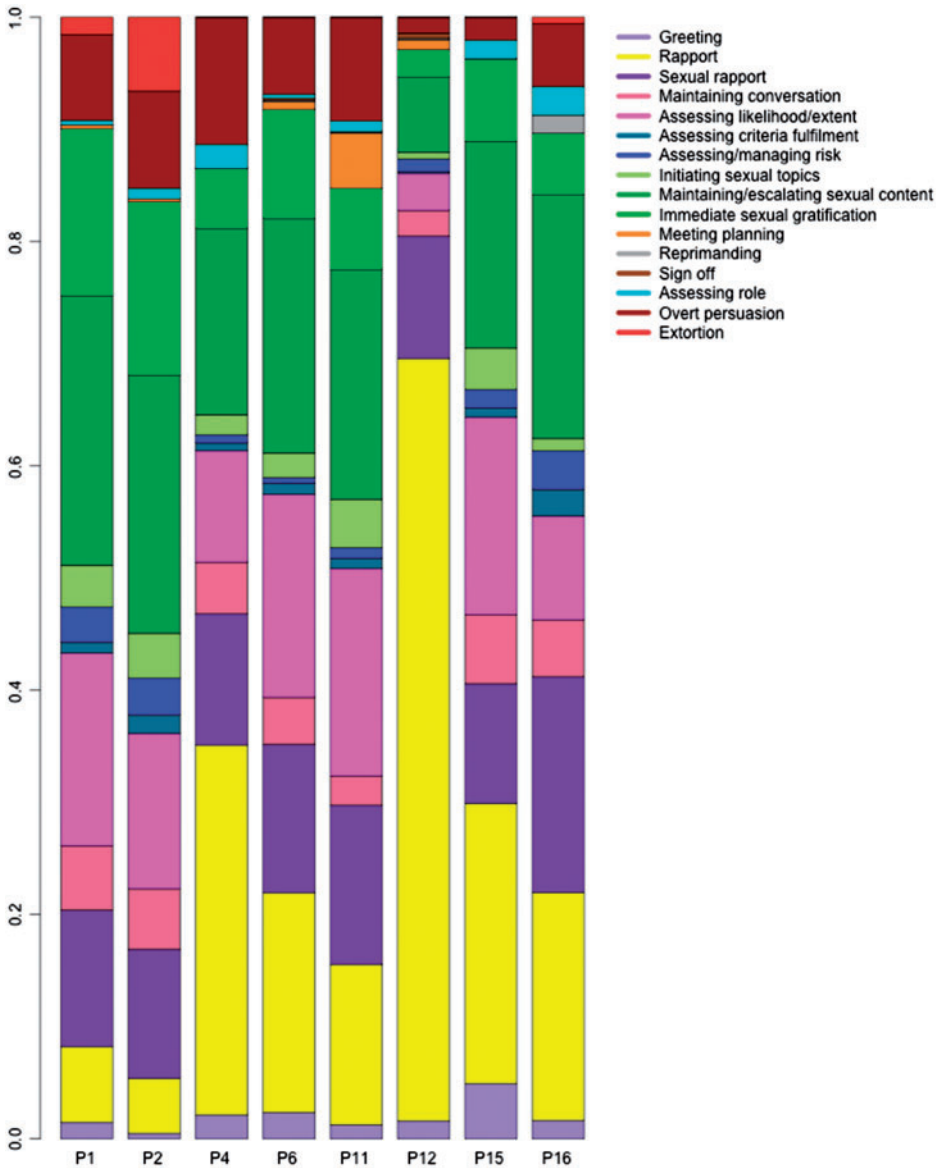
Figure 2: Proportion of moves for highest-use personas

Figure 2 shows the move frequencies for the remaining eight personas (normalized to 100 per cent of the total utterances from each persona) and demonstrates that the spread of moves is uneven across each of the 17 personas adopted by the offender—that is to say the different personas enact the objectives and strategies of the offender to varying degrees in the interactions.

It is our contention that these variable patterns of moves in interaction index differing identity performances. Thus each persona exhibits roughly the same proportion of *Greetings*, and *Sexual rapport*, for example, and *Assessing likelihood and extent of engagement*, *Maintaining/escalating sexual content*, and *Immediate sexual gratification* are also fairly stable (with the exception of P12). These moves relate to relatively stable identity positions enacted by the offender across these personas. We can also see differences between personas; for example, *Extortion* is used most by P2 but is generally scarce; the only other personas to use this move are P1 and P16 (albeit minimally). It is also observed that only P6, P11, and P12 use the *Meeting planning move*, and P1 and P2 use considerably less *Rapport* than the others.

Comparing the personas, it is useful to remember the main stated macro identity categories of each as asserted by the offender. P1, P2, P6, P11, and P12 all purport, for the most part, to be White males in their mid- to late-teens and with the exception of P12 (to which we return below) are relatively similar in terms of proportions of moves that are employed. P4 also purports to be a White male of 19 and 20 years and also a professional modelling agency representative whose job is to recruit talent online. No other personas operate within this sort of professional frame, and this identity position might be one explanation for the higher proportion of rapport-building moves in this persona. P15 and P16 are both female guises of 15 years old, and both profess to be either lesbian or bisexual. Due to the stark differences in the offender's explicitly stated identity positions, it was expected that the model agency representative persona (P4) and the female bisexual/lesbian personas (P15 and P16) would look the most different from the group in terms of move frequencies or at least substantially different from the young White male group of personas. Figure 2 above shows however that this is not really the case.

This analysis shows, however, that the personas do vary in terms of the moves used and the frequencies at which they are employed; no two personas are identical in this sense. On the whole, though, these differences are subtle. This is with the exception of P12, which looks the most distant from the rest of the group, in using twice the proportion of *Rapport* than the next highest (P4), and considerably smaller proportions of *Assessing likelihood and extent of engagement* and *Maintaining/escalating sexual content*. P12 also uses the lowest proportion of *Initiating sexual topics*, *Immediate sexual gratification*, and *Overt persuasion* in the group. This suggests that P12 is, more than any other persona, used to build friendships and relationships, and while sexual moves do occur, their low proportion could mean that sexual goals are less important to the offender in these particular interactions. It is worth noting here that over the 14 months in which these interactions occurred, there is no evidence from the data to suggest the offender's use of moves or personas changed over time.

Structure of the interactions

To describe the structures of the moves across the 20 transcripts, it is useful to introduce some visual representations in the form of move-maps. Developed in Chiang and Grant (2017), these maps represent the transcripts in terms of their move structures by presenting each move as a different colour and occupying a single column. An illustrative example of the entire move-map of Transcript 1 is presented in the Supplementary Material as Supplementary Figure S2 with extracts of different maps presented as Figures 6 and 7 below.

The maps are read from top to bottom, following the timeline of the interactions. Each horizontal line represents a single utterance (which may perform multiple moves at once), and horizontal lines separate individual conversations determined mostly by in-chat 'Session start' notifications which were checked against actual conversation breaks. The offender's contributions are seen to the left of the vertical line, and to the right are those of the victim. The persona used by the offender is given at the start of every new interaction (e.g. O1(P15), where 'O' stands for Offender and 'P' for Persona), so we can see in Supplementary Figure S2 that the offender switches between three different personas (P1, P2, and P15) in this interaction. This technique of cycling through personas is common across the transcripts, with the offender using up to nine personas to converse with a single victim presenting each victim with a kaleidoscope of identities to interact with, most of whom are rapidly attempting to persuade or extort her into sexual activity.

Approach moves

Examination of the early move structures reveals many similarities between the 17 personas, but also some differences. One of the most striking features of these interactions generally is the speed at which sexual topics are introduced by the offender. Figure 3 demonstrates the number of transcript lines before the *Initiating sexual topics* move is observed in all conversations had from each persona.

Each point in Figure 3 represents an individual conversation, and darker points indicate overlap, for example, P1 uses *Initiating sexual topics* in 11 conversations across the data set and in 6 of these within in the first line; hence the darkest point is at line 1 on the *y*-axis. The figure shows sexual topics are initiated very quickly, with 14 of the 17 personas doing so within the first 20 lines of their conversations. This is done particularly quickly with P1, P2, P3, and P11; using these personas, the offender frequently uses the move in the first utterance with an entirely new victim:

> P1: u a cam tease?

> P2: please tell me u like 2 turn lads on?

> P3: u up for sum cam fun? No faces if u dnt want
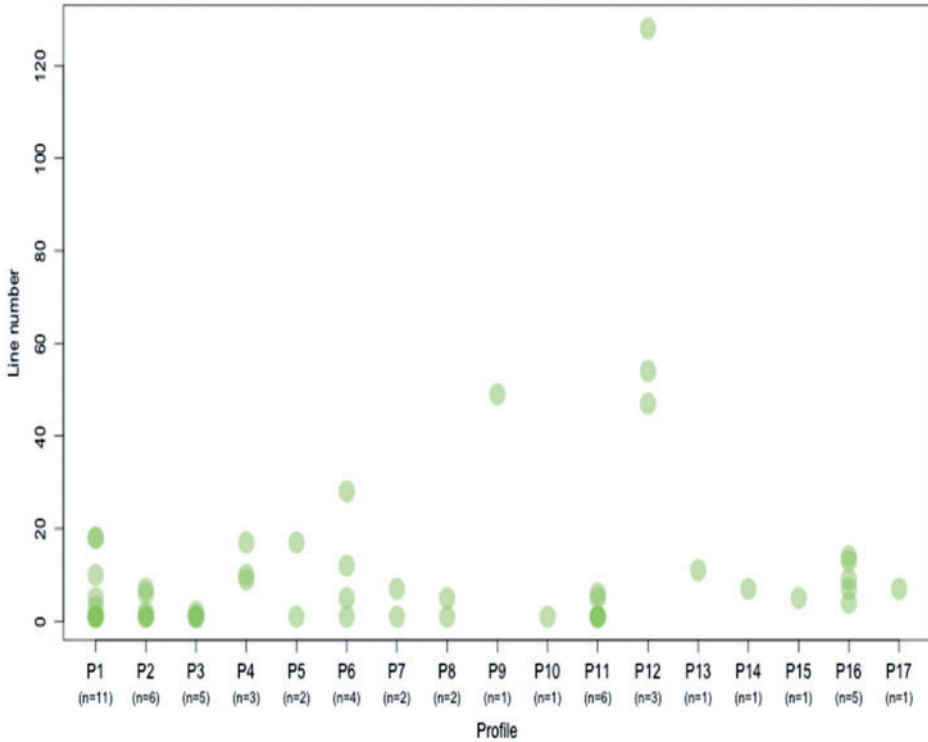
> P11: u giv hed?

Figure 3: Number of lines before Initiating sexual topics move is observed in conversations with each persona

These examples also demonstrate that often the sexual element is not explicit, but implied, and often in the form of requests for webcam interaction (all 20 victims' responses demonstrate their understanding of the implicit sexual element in phrases like these).

Other personas are slightly more varied in the time taken to introduce sexual topics, for example with P6 this is done between the 1st and 28th line, and with P9, not until the 49th line. Figure 3 makes clear, however, that P12 is again distinctive; using this persona, the offender only introduces sexual topics at the earliest at line 47, and latest at line 128. The early use of *Initiating sexual topics* (pale green) is often accompanied by *Assessing likelihood and extent of engagement* (bright pink) as well as *Sexual rapport* (dark purple), but it may come before or after a *Rapport* (yellow) move. One example of this opening move structure (considered typical across the data set) is illustrated in Figure 4 below.

Interestingly, P12 again deviates from this opening move pattern more than through any other persona. Figure 5 below represents a more typical opening move structure for P12 up to the point where the *Initiating sexual topics* move is observed (similar structures are also observed from P12 in T10, T13, and T18).
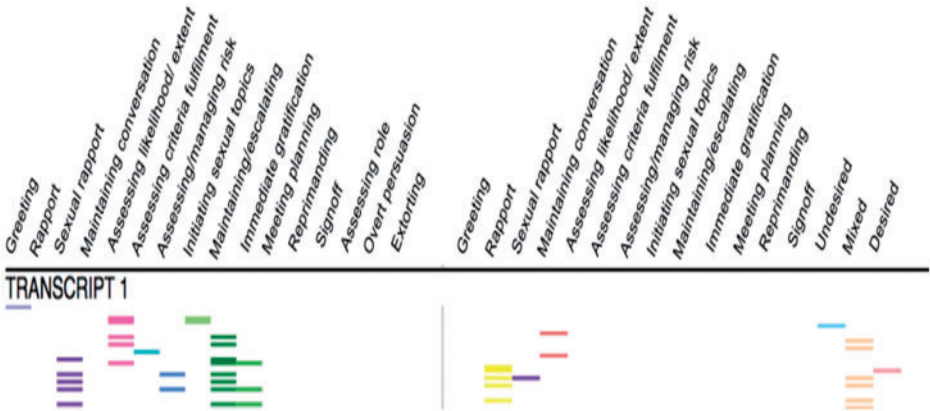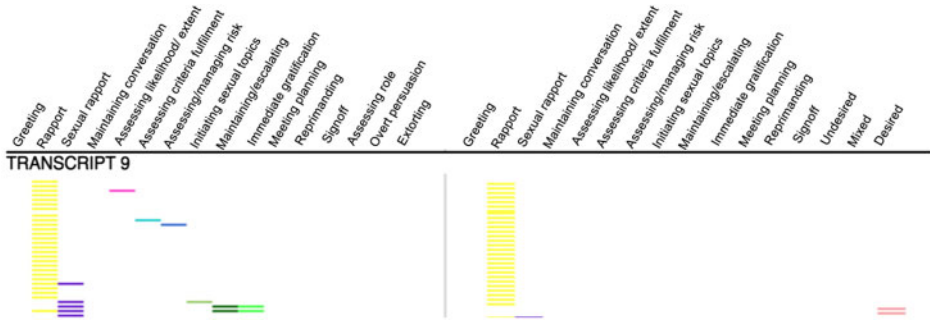
Figure 4: *P1 approach moves (T1/V1)*

Figure 5: *P12 approach moves (T9/V9)*

We can see from the move-map snippets that P12's approach moves in this instance look quite different from the pattern described above; using P12, the offender uses the *Initiating sexual topics* move only after a fairly long period of *Rapport building*. This same opening move structure is seen in the majority of P12's interactions, and in T10, it is the victim who introduces the sexual content which is then picked up and maintained by the offender. P12 also exhibits a very limited use of the *Assessing likelihood and extent of engagement* move in these approach moves compared with other personas. These differences in move structure for P12 index a very different identity position to the other personas studied. P12 builds rapport for longer, and although this rapport building is at times sexualized, there is comparably less sexual activity initiated or maintained by this persona.

Investigating Persona 12

As we have seen, P12 clearly performs a distinct identity from the other personas in terms of move selection and frequency and structures in the openings of these interactions. This finding was investigated further by visualizing the data as an MDS scatter plot shown in Figure 6. MDS allows multivariate data to be compressed into a smaller number of dimensions and visualized in terms of proximity between cases (Cox and Cox 2001). For our data, 16 dimensions of the moves have been compressed into just two dimensions, enabling the visualization of the distance between each of the eight high-use personas based on move frequency (see Figure 6).

The MDS scatter plot shows P1 and P2 to be fairly close together in the top left, and another grouping of P4, P6, P11, P15, and P16 sits together in the
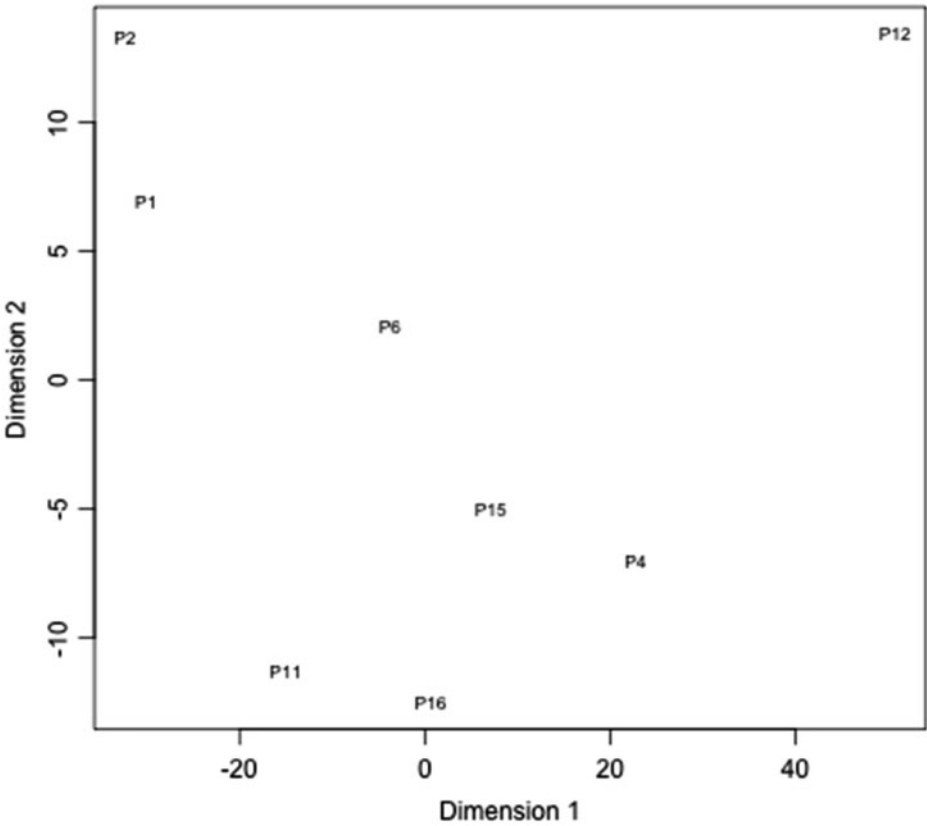
Figure 6: MDS map indicating similarity and difference between high use personas
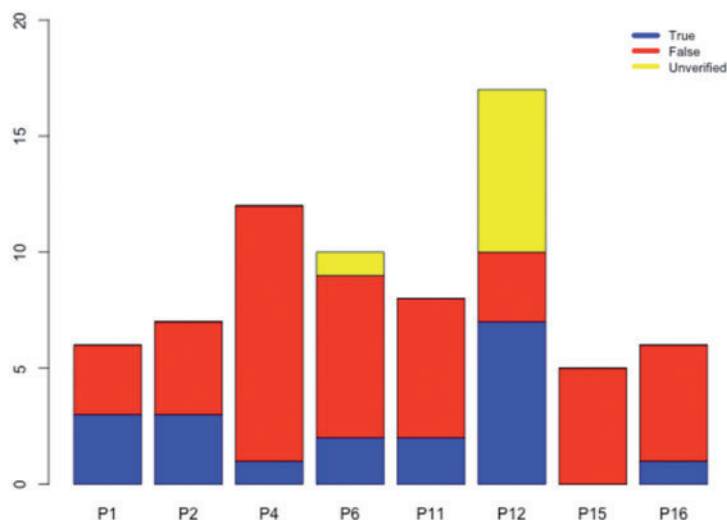
Figure 7: Veracity of self-describing assertives used by eight most-used personas

bottom-centre (with perhaps P6 lying somewhere between the two groups). P12 is again an outlier, being most distant from any other persona.

Analysis of the text featuring P12 revealed an aspect of this distinctiveness in the number of assertives used. P12 volunteers identifying information, relating to issues of identity such as gender, age, workplace, home address, ethnic background, and family history, and an essential property of such assertives is that they can be true or false (Searle 1979). The assertives were presented to the police force providing the data for verification or falsification.

The police analysis revealed two interesting observations about the offender's use of self-describing assertives. First, as can be seen in Figure 7, P12 uses significantly more assertives than when portraying the other personas (one sample t-test shows $t_{(6)} = 9.8$, $p < .001$). P4 also shows high assertive use, and this may be reasonably explained by the persona's false professional and institutional front; much of P4's time is spent giving details about the modelling agency and its practices, which inevitably requires the use of assertives. The fact that P12 uses more assertives even than P4 is less explicable and becomes even more interesting when considering the veracity of the statements.

Information provided by the police showed the highest number and proportion of assertives verified as true also belonged to Persona 12 (one sample t-test shows $t_{(6)} = 12.6$, $p < .001$). P12 also used the most unverified statements— those that the police were unable to declare true or false. These relate mostly to personal details such as the offender's family members and mental health

status. The higher proportions of true statements of a personal nature suggest that P12 is also in fact the persona closest to offender's offline identity.

DISCUSSION

Comparisons with other data sets

These 20 interactions fall into the category of online child abuse conversations, and many of the observed moves overlap with the data studied in Chiang and Grant (2017) and echo findings from O'Connell (2003), Williams *et al.* (2013), Kloess *et al.* (2014), Black *et al.* (2015), and Winters *et al.* (2017), among others. An interesting and important difference between the current study and Chiang and Grant's (2017) move analysis is that the latter reported no *Overt persuasion* or *Extortion* moves. It might be that the offender studied here is distinctive, but a more plausible explanation is the difference in data between the two studies. Following much current published research in this area (Marcum 2007; Gupta *et al.* 2012; Inches and Crestani 2012; Williams *et al.* 2013; Cano *et al.* 2014; Black *et al.* 2015; Lorenzo-Dus *et al.* 2016; Winters *et al.* 2017), Chiang and Grant (2017) took data from the online vigilante site *Perverted Justice* where adults posing as children engage online offenders in attempts to entrap them. To the authors' knowledge the current data remain one of only two published studies in linguistic and psychological literature (Kloess *et al.* 2017) which analyses genuine online CSA conversations. It seems likely that the adult 'decoys' of the Perverted Justice data create different interactional patterns with these online offenders. In contrast to offenders conversing with Perverted Justice decoys, the offender in our current study is talking to real victims, and because of this he has to manage real distrust and real rejection. This key difference could explain the presence of moves like *Overt persuasion* and *Extortion* in the current data set. That other studies featuring Perverted Justice data (some using far larger data sets) also fail to observe themes relating to forceful persuasion or extortion (Marcum 2007; Gupta *et al.* 2012; Inches and Crestani 2012; Williams *et al.* 2013; Cano *et al.* 2014; Black *et al.* 2015; Lorenzo-Dus *et al.* 2016; Winters *et al.* 2017), supports this possibility and perhaps undermines the continued use of *Perverted Justice* data as good proxy data for research into genuine online CSA conversations.

Move frequency and structure as identity indicators

The initial expectation was that the offender, in his deliberate performance of multiple and varying identity positions, would index these positions in part through the moves he used, and how he used them. Specifically, it was thought that those personas presenting identity positions seemingly furthest away from the offender's physical world identity positions would look the most different from the rest of the group, that is that the personas representing straight White males in their mid- to late-teens would look similar to each

other, and that those representing Black males, female bisexuals and lesbians, and also the modelling agency representative, would look different from these in terms of moves. We conclude that in our data neither the move frequencies nor the move structures strongly index personal identity categories of age, gender, ethnicity, or sexual orientation.

The move patterns do however seem to be indexing particular identity positions of a different type. These are micro-level situationally specific roles, rather than broad, essentialist social categories. For instance, the use of moves like *Greetings, Rapport*, and *Maintaining Conversation* arguably work towards the offender's performance of identity positions like 'friend' and 'engaged listener'. Moves are also used in combination to achieve different roles, for example the offender might introduce sexual moves alongside *Rapport*, to move from 'friend' to 'flirt', or somewhere in between. The use of sexual moves without *Rapport* or *Sexual rapport* will likely see the offender abandoning any pretence of friendship and blatantly assuming the position of 'sexual pursuer'. In terms of comparing the identity positions of the different personas, though, the most discriminating move seems to be *Extortion*, first in its extreme threatening nature, and secondly because it is used by only three of the eight most used personas (P1, P2, P16). The use of *Extortion* alongside sexual moves arguably indexes a hostile identity position which we might call 'sexual aggressor'. P1, P2, and P16 are all seen to assume this role at some point, however briefly, demonstrating that even within individual personas, the offender quickly slips in and out of these temporary roles. Because most of the moves are seen at some point from all personas, they in themselves do not go very far to differentiate them in terms of these identity positions. This suggests that the offender's persuasive communicative purpose is the overriding constraint on his identity performances.

Persona 12

P12 seemed to stand out most from the rest of the group, being conspicuous because of the preponderance of *Rapport* moves observed and the small proportion of *Assessing likelihood and engagement* moves as well as those denoting sexual content. The move-maps further supported this by structurally demonstrating that P12's approach to victims was quite different to other personas, using the *Initiating sexual topics* move far later, and generally after a long period of *Rapport* building. The frequency and structural analyses together illustrate P12's tendency to spend more time assuming the 'friend' role, and less time as the 'sexual pursuer'. This is not to say that the offender does not seek some sexual interaction using P12; there is sexual content as well as the use of the *Sexual rapport* move. Perhaps then the offender is in fact aiming for a role closer to 'boyfriend' in these particular interactions. It is worth noting that the early introduction of sexual topics seen with the other personas is a commonly observed trait in grooming conversations (Williams *et al.* 2013; Black *et al.* 2015; Chiang and Grant 2017; Winters *et al.* 2017), so as well as standing

out from the other personas, P12 may stand apart from online sexual abusers more generally. It may be that P12 is the persona reserved for more gentle friendship and relationship-focused interactions (whilst maintaining the possibility of sexual engagement), while other personas are used for more direct and aggressive approaches. On the other hand, it could indicate that the offender's communicative purposes while using P12 may not be the same as the offender's in the more typical abuse conversations; it could be that this persona was used in the pursuit of what he saw as a more reciprocal relationship.

With regard to expectations of surrounding macro identity positions, it may be surprising to some that P12 represents a straight, White male in his mid- to late-teens. The move analysis might suggest that P12 represents a more stereotypical female persona, through its stronger orientation towards friendship and relationship building (see Tannen 1992; Herring 2000) and its more gentle approach to the introduction of sexual topics. In fact this offender does not use these more interpersonal moves to index stereotypical female roles; it is not only that his male P12 persona demonstrates more rapport building and interpersonal focus, it is also that his female personas use the same direct goal-driven strategies as other male personas in his portfolio.

Broadly speaking, however, we have seen that through differences in move frequency and structure, the offender performs at least two quite different identity positions. One is performed through P12, which, compared to the other personas, can be characterized as an attempt at a 'friend' or 'relationship-seeker' identity. This is in contrast to the dominant identity performed through the remaining personas in the transcripts, which represent a more direct, sexually oriented and sometimes aggressive 'sexual pursuer'.

One possible explanation for P12 being distinctive in this way is that this could be the persona used by the offender as his 'home identity', the one which is used to meet friends and converse as 'himself', rather than one created for the deliberate and self-aware performance of deceptive identity positions as a sexual aggressor. This possibility is supported by the number of self-describing (and often identifying) statements used by P12 which have been verified as true against police records. This is not to say that P12 is not used to deceive and manipulate, Figure 7 illustrates that false statements are indeed used by this persona, or that as P12 the offender does not seek the same sorts of indecent material as when enacting the other personas, but the move analysis suggests that these goals are in some way secondary in the case of P12.

IMPLICATIONS AND CONCLUDING REMARKS

This study has shown that choices in the use of moves, as well as their frequency and structure, can be used as a resource to index various temporary micro-identity positions like 'engaged listener', 'friend', and 'sexual aggressor'. In this sense we can conclude that aspects of identity performance are indeed achieved at this level of linguistic production. The study also showed however that that the offender did not seem to use moves to index the deliberately

performed macro-identity categories in any meaningful way, for example there were no real discernible differences in moves between male and female personas.

This article has raised two significant points for future work and application. First, the validity of Perverted Justice and similar data as a proxy for true online sex abuse data is called into doubt, at least for answering some research questions. There are observable interactional differences in these CSA conversations involving real children in comparison to those involving adult decoys. From an operational perspective, we might draw from this study that undercover police officers could aim to evoke from offenders more forceful moves like *Overt persuasion* to perform closer to how a genuine child might.

Secondly, that move analysis is indeed a valuable approach in improving understanding of CSA conversations and might also be developed and tested to assist investigators. Linguistic investigative assistance might be provided particularly where police focus is directed towards a group of online personas where there is evidence that those personas might be operated by a single suspect. In our data by carrying out a move analysis on a group of personas, we have discovered amongst them a distinctive persona, which turned out to be an identifying 'home identity'. This could have significant implications for policing online sexual abuse, and assist more generally with the identification of online offenders who assume multiple online personas.

Such insights may well assist with the wider project as described by Grant and MacLeod (2016), of which one aspect involves the training of police involved in online investigations. Understandings deriving from moves analyses may improve intelligence analysis of offenders and/or performance where police go undercover either as offenders or as potential victims.

SUPPLEMENTARY DATA

Supplementary material is available at *Applied Linguistics* online.

Conflict of interest statement. None declared.

REFERENCES

Açar, K. V. 2016. 'Sexual extortion of children in cyberspace,' *International Journal of Cyber Criminology* 10: 110–26.

Bhatia, V. K. 1993. *Analysing Genre: Language Use in Professional Settings*. Pearson Education.

Black, P. J., **M. Wollis**, **M. Woodworth**, and **J. T. Hancock**. 2015. 'A linguistic analysis of grooming strategies of online child sex offenders: Implications for our understanding of predatory sexual behaviour in an increasingly computer-mediated world,' Child Abuse and Neglect 44: 140–9.

Boon, A. 2013. 'Identifying moves in an IMCD session,' *Bulletin of Toyo Gakuen University* 21: 219–35.

Boon, A. 2015. 'Learner support and discovery in a virtual non-judgmental environment,' PhD thesis, Aston University.

Bucholtz, M. 1999. 'Why be normal? Language and identity practices in a community of nerd girls,' *Language in Society* 28: 203–23.

Bucholtz, M. and K. Hall. 2004. 'Language and identity' in A. Duranti (ed.). *A Companion to Linguistic Anthropology*. Blackwell Publishing.

Bucholtz, M. and K. Hall. 2005. 'Identity and interaction: A sociocultural linguistic approach,' *Discourse Studies* 7: 585–614.

Cano, A., M. Fernandez, and H. Alani. 2014. 'Detecting child grooming behaviour patterns on social media' in The 6th International Conference on Social Informatics, Barcelona, Spain. [Online]. Available at http://link.springer.com/chapter/10.1007/978-3-319-13734-6_30. Accessed: 1 March 2016.

Chiang, E. and T. Grant. 2017. 'Online grooming: moves and strategies,' *Language and Law / Linguagem e Direito* 4: 103–41.

Child Exploitation and Online Protection Centre (CEOP). 2013. 'Annual Review 2012-2013 & Centre Plan 2013-2014'. [Online]. Available at https://www.ceop.police.uk/Documents/ceopdocs/AnnualReviewCentrePlan2013.pdf. Accessed 14th May 2015.

Cox, T. F. and M. A. A. Cox. 2001. *Multidimensional Scaling*, 2nd edn. Chapman and Hall/CRC.

Craven, S., S. Brown, and E. Gilchrist. 2006. 'Sexual grooming of children: Review of literature and theoretical considerations,' *Journal of Sexual Aggression* 12: 287–99.

Eneman, M., A. A. Gillespie, and C. S. Bernd. 2010. 'Technology and sexual abuse: A critical review of an Internet grooming case' in *ICIS 2010 Proceedings*, paper 144. [Online]. Available at http://aisel.aisnet.org/icis2010_submissions/144. Accessed 21 January 2016.

Goffman, E. 1956. *The Presentation of Self in Everyday Life*. University of Edinburgh Social Sciences Research Centre. [Online]. Available at https://monoskop.org/images/1/19/Goffman_Erving_The_Presentation_of_Self_in_Everyday_Life.pdf. Accessed 3 November 2016.

Grant, T., and N. Macleod. (in press). 'Resources and constraints in linguistic identity performance: a theory of authorship,' *Language and Law/Linguagem e Direito*.

Grant, T., and N. Macleod. 2016. 'Assuming identities online: experimental linguistics applied to the policing of online paedophile activity,' *Applied Linguistics* 37: 50–70.

Grosz, B., and C. Sidner. 1986. 'Attention, intentions, and the structure of discourse,' *Computational Linguistics* 12: 175–204.

Gupta, A., P. Kumaraguru, and A. Sureka. 2012. 'Characterizing Pedophile Conversations on the Internet using Online Grooming', Indraprastha Institute of Information Technology [Online]. Available at http://arxiv.org/pdf/1208.4324v1.pdf. Accessed 14 January 2015.

Herring, S. C. 1993. 'Gender and democracy in computer-mediated communication,' *Electronic Journal of Communication* 3: 1–17.

Herring, C. 2000. 'Gender differences in CMC: Findings and implications,' CRSR Newsletter 18/1. [Online]. Available at: http://cpsr.org/issues/womenintech/herring/. [Accessed: 12th November 2016].

Herring, C. 2003. 'Gender and power in online communication' in J. Holmes and M. Meyerhoff (eds). *The Handbook of Language and Gender*. Blackwell.

Inches, G. and F. Crestani. 2012. Overview of the international sexual predator identification competition at pan-2012. [Online]. Available at http://www.uni-weimar.de/medien/webis/events/pan-12/pan12-papers-final/pan12-author-identification/inches12-overview.pdf. Accessed 24 February 2016.

Joseph, J. E. 2004. *Language and Identity: National, Ethnic, Religious*. Palgrave Macmillan.

Kloess, J. A., A. R. Beech, and L. Harkins. 2014. 'Online child sexual exploitation: Prevalence, process, and offender characteristics,' *Trauma, Violence, & Abuse* 15: 126–39.

Kloess, J. A., S. Seymour-Smith, C. E. Hamilton-Giachritsis, M. L. Long, D. Shipley, and A. R. Beech. 2017. 'A qualitative analysis of offenders' modus operandi in sexually exploitative interactions with children online,' *Sexual Abuse: A Journal of Research and Treatment* 29: 563–91.

Kopecký, K. 2016. 'Misuse of web cameras to manipulate children within the so-called webcam trolling,' *Telematics and Informatics* 33: 1–7.

Kopecký, K. 2017. 'Online blackmail of Czech children focused on so-called ''sextortion'' (analysis of culprit and victim behaviors),' *Telematics and Informatics* 34: 11–9.

Lorenzo-Dus, N., C. Izura, and R. Pérez-Tattam. 2016. 'Understanding grooming discourse in computer-mediated environments,' *Discourse, Context and Media* 12: 40–50.

Macagno, F. and **S. Bigi**. 2017. 'Analyzing the pragmatic structure of dialogues,' *Discourse Studies* 19: 148–68.

Marcum, C. 2007. 'Interpreting the intentions of internet predators: An examination of online predatory behavior,' *Journal of Child Sexual Abuse* 16: 99–114.

McGuire, M. and **S. Dowling**. 2013. 'Cyber crime: A review of the evidence'. *Home Office Research Report* 75. [Online]. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/246756/horr75-chap4.pdf. Accessed 5 March 2016.

O'Connell, R. 2003. *A Typology of Cyber Sexploitation and Online Grooming Practices*. Cyberspace Research Unit, University of Central Lancashire. [Online]. Available at http://netsafe.org.nz/Doc_Library/rachelocon-nell1.pdf. Accessed 14 January 2015.

Olson, L. N., **J. L. Daggs**, **B. L. Ellevold**, and **T. K. K. Rogers**. 2007. 'Entrapping the innocent: Toward a theory of child sexual predators' luring communication,' *Communication Theory* 17: 231–51.

Ospina, M., **C. Harstall**, and **L. Dennett**. 2010. *Sexual Exploitation of Children and Youth over the Internet: A Rapid Review of the Scientific Literature*. Institute of Health Economics. Available at http://www.ihe.ca/advanced-search/sexual-exploitation-of-children-and-youth-over-the-internet-a-rapid-review-of-the-scientific-literature.

Pranoto, H., **F. E. Gunawan**, and **B. Soewito**. 2015. 'Logistic models for classifying online grooming conversation,' *Procedia Computer Science* 59: 357–65.

Samraj, B. and **J. M. Gawron**. 2015. 'The suicide note as a genre: Implications for genre theory,' *Journal of English for Academic Purposes* 19: 88–101.

Searle, J. R. 1979. *Expression and Meaning Studies in the Theory of Speech Acts*. Cambridge University Press.

Shannon, D. 2008. 'Online sexual grooming in Sweden—online and offline sex offences against children as described in Swedish police data,' *Journal of Scandinavian Studies in Criminology and Crime Prevention* 9: 160–80.

Swales, J. 1981. *Aspects of Article Introductions: Aston ESP Research Reports No. 1*. Language Studies Unit, Aston University.

Swales, J. 1990. *Genre Analysis: English in Academic and Research Settings*. Cambridge University Press.

Swales, J. 2004. *Research Genres: Explorations and Applications*. Cambridge University Press.

Tagg, C. 2015. *Exploring Digital Communication: Language in Action*. Routledge.

Tannen, D. 1992. *You Just Don't Understand: Women and Men in Conversation*. Virago Press.

Webster, S., **J. Davidson**, **A. Bifulco**, **P. Gottschalk**, **V. Caretti**, **T. Pham**, and **J. Grove-Hills**. 2012. *European Online Grooming Project Final Report*. [Online]. Available at http://www.europeanonlinegroomingproject.com/media/2076/european-online-grooming-project-final-report.pdf. Accessed 14 January 2015.

Whittle, H. C., **C. E. Hamilton-Giachritsis**, **A. R. Beech**, and **G. Collings**. 2013. 'A review of online grooming: Characteristics and concerns,' *Aggression and Violent Behavior* 18: 62–70.

Whittle, H. C., **C. E. Hamilton-Giachritsis**, and **A. R. Beech**. 2014. 'In their own words: Young peoples' vulnerabilities to being groomed and sexually abused online,' *Psychology* 5: 1185–96.

Williams, R., **I. A. Elliott**, and **A. R. Beech**. 2013. 'Identifying sexual grooming themes used by internet sex offenders,' *Deviant Behavior* 34: 135–52.

Winters, G. M., **L. E. Kaylor**, and **E. L. Jeglic**. 2017. 'Sexual offenders contacting children online: An examination of transcripts of sexual grooming,' *Journal of Sexual Aggression* 23: 62–76.