

LICENSE TO ILL: SLANG AND UNCERTAINTY AS MOTIVATIONAL  
ACCOUNTS FOR GROUP IDENTIFICATION

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## Abstract

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People use verbal communication with other group members as unique social identity markers. Individual's word choices adjust and change based on the group to which the individual belongs. For example, regional slang allows for people to view themselves as a distinct group represented in a particular geographic location (e.g., Northern Californians and the term "*hella*"). As a result, when individuals recognize the informal language (slang) of their fellow group members, they should feel confident and included in their group. However, when individuals hear their peers communicate norms by using slang with which they are unfamiliar, it should create feelings of exclusion and threaten their identity as a group member. This aversive uncertainty should motivate individuals to identify with their group because the group provides information about themselves.

The current work focuses on the use of uncertainty and group specific slang, which is the identity-specific information derived from group membership, as a marker of social identity. Participants ( $N = 126$ ) were randomly assigned to conditions of uncertainty (high vs low) against conditions of slang (known or unknown) on self-reports of group identification, perceived entitativity, and self-prototypicality. We specifically

hypothesized that slang that highly uncertain participants did not understand would create a negative drive state which, would result in a high level of reported group identification.

These findings suggest that the informal words with which we communicate establish a sense of identity and belonging in self-relevant groups. Understanding a group's slang can increase feelings of belongingness to a group and similarity to other group members. Not knowing an ingroup's slang is a form of lacking understanding of the group's norms and can mark the person as an outsider. We discuss these results in terms of the role of group-based slang as indicators of both group inclusion and exclusion.

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## Introduction

As noted by Wundt in 1927, language lies at the heart of social psychology (translated by Kim, 2016). Communication is a vehicle for culture, a symbol of identity, and above all, language overlays the web of human connectedness. The current research primarily focuses on the social psychological study of social identity, intragroup processes, and slang discourse. This study, which is grounded in the social identity perspective (social-identity theory, self-categorization theory, uncertainty-identity theory, and communication accommodation theory), how self-uncertainty and slang interact to motivate for group identification processes (Hogg, 2000; see also Giles & Johnson, 1987; Tajfel & Turner, 1979). The communication - slang - is a marker of one's place within an important social group (Hogg & Reid, 2006). Understanding responses to in-group slang use is important to the individuals' sense of self-prototypicality, conceptual self-uncertainty, social identity, and group position.

Humboldt State University (HSU) students should have their own slang in comparison to other students in the state or even non-students in their local community. This is because of the differences in geographic location, demographics, and overall unique collegiate identity. As a result, when HSU students can easily recognize and participate in in-group slang usage, they are likely feel included in the HSU identity. Consistent with ostracism literature and work on social identity and prototypicality threat, when HSU students (perceivers) hear their peers communicate HSU norms by using slang with which the perceiver is unfamiliar, it likely creates feelings of exclusion and

threatens their belongingness needs (Williams, 2009). If students feel uncertain about who they are, being exposed to their peers using unfamiliar slang likely magnifies their sense of uncertainty and activates their motivation to satisfy belonging needs. These members should be motivated to say whatever they can to reduce that self-uncertainty and reseat themselves in the position of prototypical HSU students.

This research benefits a broad population in multiple contexts. For example, this work, including defining in-group slang as a social identity process, can benefit students in school orientations and peer mentorship programs where it is important to reduce feelings of ostracism and uncertainty by behaving like their prototypical peers. This might be especially important among transfer students from the other regions, who may have an entirely different set of communication norms. HSU students who feel that they are on the periphery of the HSU identity potentially experience severe negative consequences of belongingness needs which can lead to depression, aggression, or extremist thoughts (Hogg, Kruglanski, & van den Bos, 2013; see also Williams, Cheung, & Choi, 200; Zadro, Williams, & Richardson, 2004). On a very practical domain, being a student who “doesn’t fit in” is related to negative student outcomes such as poor retention rates and low student success (Smith, Morgan, & Monks, 2017).

More broadly, identity uncertainty predicts extremism (Hogg et al., 2013). That is, individuals seek extremist groups because they can provide a strong and strict definition of an identity. Hogg (2014) suggested that societal change can lead to aversive and uncertain feelings which motivates individuals to identify with entitative and distinct groups. This identification can modify behavior in extreme ways, especially under

authoritarian leadership (Hogg & Adelman, 2013). Self-uncertainty leads to the categorization process under different salient identities, for example, gangs which require extreme behavior for inclusive membership. The salient groups may require zealously strong ideologies with group-normative behavior. Goldman, Giles and Hogg (2014) suggested that affiliation with gangs arises from a familial-like protection, which confronts life's uncertainties especially among youth. The importance of identity and language is key to gang members, specifically because of the communication of loyalty, commitment of socialization, and the spoken expectations of the other gang members (Woo, Giles, Hogg, & Goldman, 2015).

### **Social Language**

Language is the carrier of social meaning and understandings. Spoken language is a major facilitator of communication in most social groups. All social communities create their own unique phrases and meanings to various degrees. For example, some students might "hit the books" in reference to studying while other students might "cram." American English has its own abundant slang (informal language particular to a group), terms which people use to describe specific situations and events, for example, "Portmanteau [combination] words like 'brunch' breakfast and lunch" (Roback, 1954, p. 304). These slang terms are typically for 'members-only' and as such, can hold specific markers about who is in the group, who is not in the group, and perhaps even group member status about group centrality or periphery status. Groups are likely to use slang because it establishes a sense of identity (Bevan, 2011; de Klerk, 2005). Because slang is

so group specific, it likely holds the perceptual function of making groups appear entitative, which is the extent to which a collection of individuals is perceived as a cohesive and unique group (Campbell, 1958). Slang also facilitates the construction of group norms and allows individuals to associate with common others through shared fates because they understand each other (Kincaid, 2004; Lapinski & Rimal, 2005). Localized slang words separate groups and can send in-group messages (e.g., if you use these phrases correctly, you are probably one of us; Adams, 2009). Group identification motivates slang word usage because it symbolizes social inclusion (de Klerk, 2005). Group identification and the need for belonging likely motivates in-group slang usage, eventually allowing slang usage to promote enhanced in-group identification. For example, Welshmen upgraded their in-group traits when their identity was made salient, solidifying their identities as Welshmen (Bourhis, Giles, & Tajfel, 1973). Slang acts as a boundary for 'us', allowing those who understand it to figuratively enter the group and psychologically feel that they are a part of the group. Members-only language systems can establish shared inclusiveness and social identities, which allows individuals to contrast their group with the larger culture (Adams, 2009). That is, a group's idiosyncratic slang structures the group's identity by making the group unique from other groups within a society.

At a basic level, language is a device that brings individuals together and helps to share ideas, norms, and experiences - language transfers culture from individuals to other individuals in a group setting. Vygotsky's sociocultural theory (1978) notes the importance of language and culture in the development of both the individual and society.

According to sociocultural theory, prototypical members (i.e., those who best embody the group's norms, attitudes, and behaviors) of a group engage in conversations and are responsible for passing down culture, norms, and beliefs to new members from generation to generation (e.g., Clark & Stephenson, 1995). Furthermore, language is the tool people use to transfer cognitions and conscious states (Semin, 1998). In intragroup contexts, people use language to transfer social and physical markers (e.g., students tend to understand each other when discussing where to meet on campus, even without the use of formal location, such as 'the quad'). Speech and language communicate social markers such as social status, age, social group membership, and so forth (Giles, Scherer, & Taylor, 1979). Even the simple use of language increases the accessibility of previously shared meanings and forms group norms, attitudes, and behaviors.

### **Linguistic Relativity**

According to Goodenough (1957, p. 299), social behavior "consists of whatever it is one has to know in order to operate in a manner acceptable to its members and to do so in any role that they accept for any one of themselves". Goodenough posited the idea that people acquire knowledge and behavior through their social groups. Linguistic relativity theory (see Tohidian, 2009; Sapir, 1929) posits that understanding and using language can influence one's thoughts because the language of a culture carries shared norms, attitudes, and worldviews. Sapir (1929) acknowledged the relationship between culture and languages by arguing that they are identical and cannot be understood separately. Other groups possess distinct cultures and languages, making language (and slang) not

only a vessel of intragroup communication but also a way for groups to understand themselves with respect to other groups. Given this definition of language and culture, it is impossibly difficult for members of an out-group to accurately understand a member of the in-group's thoughts through their unique languages. Whorf, Carroll, Levinson and Lee (2012) argued that groups have different words that are appropriate for their culture and identity. Specifically, in-group language norms influence an individual's worldview perspectives, which out-group members may not know or fully understand. As a primary form of disseminating culture within a group, language helps to form the basis of how individuals perceive themselves with respect to their important group memberships.

### **Social Identity**

Social identity theory (Tajfel & Turner, 1979) provides a framework for how individuals operate according to their group memberships. Social identity is the individual's sense of identity derived from important and salient group memberships (e.g., social groups, athletic teams, educational cohorts, and ethnicity). It holds a positive or negative distinction in comparison to other groups and thus people strive for positive psychological distinctiveness from other groups (Tajfel, 1981; Turner, 1985). In-groups serve a multitude of functions for the individual. They provide a belief system for who they are, how they should talk, and how they should talk, think, feel, and behave. Social identity and related group cognitions are explained through the social identity perspective (e.g., Hogg, 2003; Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), which posits that individuals define themselves by the groups to which they

belong. This sense of belonging is central to one's social self because it generates pro-social group behaviors while promoting conformity and cohesion within the group (Abrams & Hogg, 1988; Cameron, 2004). The construction and modification of normative beliefs from other group members is called referent information influence (Turner, 1985; Billig, Abrams, & Hogg, 1991; Hogg & Turner, 1987). This occurs through processes of self and social categorization whereby individual's behavior, attitudes, and norms are defined by and through group membership. Members actively seek to align their actions with normative group behaviors because they look to in-group members for behavior and attitudinal cues with respect to their social identity. Group members internalize group behaviors by confirming that their behaviors align with the groups. These behaviors include using the group's personalized language variety (Milroy, 1982). Communication plays a pivotal role in developing and influencing group norms. Group norms (e.g., students tend to solidify their position by vocalizing progression of thesis) develop by differentiating between out-group and in-group members. Self-categorization is one of the mechanisms through which these various social identities and self-concepts occur.

The individual's self-concept, derived in part from a group membership, is a process of the in-group and the in-group's relation to other groups (Turner et al., 1987). Group identification can enhance in-group favoritism, which serves to increase feelings of in-group approval and being 'right' (Abrams & Hogg, 1988; Tajfel & Turner, 1979). People derive a sense of belongingness from self-relevant groups and emotional significance from the group membership. Identification and belongingness serve multiple

functions than just differentiating out-groups. People who identify strongly with their social identities contribute to the prescribed behaviors, attitudes, and characteristics of that group. Also, these prescriptions of behavior are consensual group expectations (i.e., norms). These social expectations create social understandings that further influence norms and language (Giles & Johnson, 1981; Hansen & Liu, 1997).

Slang is a strong instrument for group distinction because it is a marker of the cognitive representation that members hold of their social identity, also known as *prototypicality* (Tajfel, 1981; Hogg & Reid, 2006). A prototype is a cognitive representation of a group, which is the most salient and distinctive attributes of a group, effectively summarizing what is important to the group, how the group thinks, and how members should behave. Because the group's prototype holds information about relevant group attitudes, norms, and behaviors, members are influenced by other members who approximate their in-group prototype. Moreover, this process results in group members assimilating toward the attitudes and behavior of the prototype. This process of assimilation, known as self-categorization, causes individuals to converge on the group's prototype, and in certain cases, create a uniform group identity.

Social identification occurs through categorization of self and others into groups. Uncertainty, self-esteem, and belonging needs motivate self and social categorization (Turner et al., 1987). Individuals who identify themselves as belonging to a group or social category undergo *depersonalization*. Self and social categorization entails depersonalization of self and others to the in-group prototype whereby group members perceive in-group members (including the self) and out-group members as representatives

of their respective group prototypes (Hogg & Reid, 2006). For example, both athletes and nerds may expect a nerd to study profusely for an exam. That is, students behave in a way that is consistent and aligns with the student prototype especially when they identify as students. Individuals depersonalize their self-identities to prototypes when group membership is salient (Turner & Oakes, 1986). Not only do depersonalized group members take on the norms of the group, they also view themselves as true members of the group. A depersonalized group member will behave in a prototypical manner through their actions, words, and thoughts. Prototypical members of a group communicate norms through language to both in-group members and out-group members. This is consistent with Hogg and Tindale's (2005) assertion that communication itself configures norms because norms are shared patterns of a group's thoughts, feelings, and behaviors. Idiosyncratic language features (e.g., slang or jargon) provide unique self and social functions of categorization.

**In-group prototypicality threats.** Individual group members vary in degrees to which they approximate the group's prototype (i.e., in their self-prototypicality). Prototypical members are highly representative of a group's norms and beliefs while non-prototypical members display behaviors that may position them as fringe members (Hogg & Tindale, 2005). When the social identity of a relevant group is salient, members who feel that they are on the periphery of the group often display a motivational tendency to align themselves with group norms and comply with standard group behaviors (Noel, Wann, & Branscombe, 1995). Schmitt and Branscombe (2001) found that fringe group members engage in behavior that increases individuals' prototypicality within the group.

These findings are similar to Goldman and Hogg's (2016) work, which suggests that non-prototypical but strongly identified group members engage in extreme intergroup behavior such as derogating out-group members. Displaying negative views or actions towards out-group members establishes one's in-group centrality and value as a normative group member - their prototypicality (Van Kleef, Steinel, Knippenberg, Hogg, & Svensson, 2007). Behavior, communication, and beliefs all help to establish who belongs to the in-group and who belongs to the out-group, and more specifically, how well an individual represents their group.

Groups achieve intergroup differentiation through meta-contrast, which is the measured distance and differences between in-group prototypes and out-group prototypes (Turner et al., 1987). This process allows for clarity of the in-group prototype (see Hohman, Gaffney, & Hogg, 2017). Meta-contrast enhances perceived entitativity – the perception of the group as an entity or a unit (Hamilton & Sherman, 1996; Haslam et al., 1996; Rydell & McConnell, 2005). The entitative properties of a group make it appear distinct, homogeneous, and structured (Campbell, 1958). For example, different sports have a shared culture that display distinct traits that other sports do not share (e.g., cyclists ride bicycles, but unlike triathletes, their jerseys have sleeves). Organization and structure are key to the perception of the group's entitativity. Perceived group cohesiveness benefits from unified and consistent group behavior (Lickel et al., 2000). According to Hamilton, Sherman, and Lickel (1998), the importance of a group membership and member similarity, group goals and outcomes determine entitativity. This property of “groupness” (Spencer-Rodgers, Hamilton, & Sherman, 2007) and the

common features that bind members together forces perceptions of the group as a unit. Research on peripheral group members is similar to ostracism research, which suggests that negative feelings are consequences of rejection or denial of group membership (Williams, 2001).

**Negative consequences of being peripheral.** Using in-group rhetoric (slang) likely gives the perception of engaged in-group prototypical behavior, which increases group members' feelings of self-prototypicality and inclusion (Hogg & Tindale, 2005; Lapinski & Rimal, 2005; Rimal & Real, 2003). However, when individuals lack fit with a self-relevant group, they tend to experience self-uncertainty, which is the uncomfortable questioning of who they are (Hogg, 2011; Hohman et al., 2017). Similarly, Williams (2009) asserts that the related construct of ostracism can threaten four fundamental needs of belonging: competence, self-esteem, meaningful existence and control. These four needs contribute to a sense of belonging that is derived from social acknowledgement (Jamieson, Harkins, & Williams, 2010) and when threatened, they activate the same discomfort detection region of the brain which is activated in response to physical pain – basically, feeling left out, physically hurts (Eisenberger, Lieberman, & Williams, 2003).

The four belonging needs activate in response to a sensitive ostracism detection system which helps to prevent abandonment. When threatened, belonging needs are affected quickly and strongly (Spoor & Williams, 2007). Experimental research shows that people feel the negative effects of ostracism both in response to being left out of a real-life ball toss game and even when excluded by computers through a short 20-minute electronic ball-toss game (Zadro et al., 2004). Whenever individuals are not part of a

group, or they are ostracized, they experience feelings of disconnect and self-uncertainty (Chen, Law, & Williams, 2010).

Ostracism affects basic needs satisfaction by way of negative psychological consequences such as depressed self-esteem, low belonging, depressed efficacy, and a negative mood (Faulkner, 1999; Jones, Carter-Sowell, Kelly, & Williams, 2009; Williams, Cheung, & Choi, 2000). Being out of the loop in terms of understanding cultural references can create a sensation that one is being ostracized. Popular culture references such as music, movies, or the latest gossip are key to more than just an individual's peer or workgroup, they reflect a sense of belongingness in general society (Williams, 2009). They emphasize current and modern trends to what the general population finds culturally important and relevant. People who feel left out of pop culture references or that they do not understand such references experience the effects of ostracism such as low trust and less liking of group members (Jones, Carter-Sowell, & Kelly, 2011; Jones & Kelly, 2010). Exposure to actors, musicians, logos, and additional pop culture related stimuli that participants did not recognize led to feeling out of the loop, more negative moods, and higher uncertainty conditions compared to individuals who would recognize pop culture icons (Iannone, Kelly, & Williams, 2018). Additionally, feeling out of the loop explains and mediates the connection between need satisfaction (i.e., belonging, self-esteem, meaningful existence, and control) and mood states such as depression or aggression.

Participants who are unfamiliar with pop culture references reported trying to look up definitions and explanations for references that they did not know (Iannone et al.,

2018). This suggests that feeling left out of a group, similar to conceptual self-uncertainty, creates a negative drive state that causes people to try to get back into the loop. Being out of the loop or even holding periphery status may cause a motivational drive state to regain entry towards prototypicality.

People who find themselves on the periphery will also find themselves feeling the negative consequences of self-uncertainty. The negative consequences of ostracism and prototypicality threat are similar, with the latter leading to self-uncertainty (Hohman et al., 2017). Feelings of uncertainty will influence group members to compare and conform to a group's prototype because deriving information from others can solidify group membership position (Hogg, 2010; Hohman et al., 2017). Specifically, aversive feelings of both uncertainty and periphery status tend to motivate individuals to seek out behaviors and attitudes which can reduce or remove their negative feelings.

### **Uncertainty-identity Theory**

Uncertainty, at its best, is a thrilling challenge that people may resolve through self-exploration and the satisfaction of mastering the unknown. However, in a more negative light, uncertainty is uncomfortable when people feel that they are unable to predict and control a dangerous and lonely world. Regardless of how individuals view uncertainty, they try to engage in behaviors to resolve and manage it. Foreign situations trigger feelings of uncertainty (Hogg, 2007). Individuals are particularly motivated to reduce uncertainties when they concern the self (e.g., who I am, who we are; Gaffney, Rast, Hackett, & Hogg, 2014).

The process of comparison to others for understanding the world is paramount in uncertainty reduction (Hogg & Reid, 2006). Turner's self-categorization theory (1985) explicitly states that individuals are motivated to know the self and as such, they will turn to a clearly defined group to help to understand their own attitudes and opinions or decide on a proper course of action (Hohman et al., 2017). Individuals who are uncertain turn to similar others for information on the veracity of their opinions, the quality of their ability (e.g., Festinger, 1954) and to their groups for attitudes and behaviors (see Hogg & Gaffney, 2014). Uncertainty-identity theory (Hogg, 2000, 2007; Grant & Hogg, 2012) posits that group identification is a way that people can use their important group memberships to reduce feelings of uncertainty about the self. Thus, uncertainty-identity theory provides a motivational account for group identification (Hogg & Mullin, 1999). Individuals experiencing uncertainty work to reduce uncertainty by turning to similar others and peers for information on how to behave because group identification causes individuals to internalize group attributes and transform self-conception through self-categorization.

People high in self-uncertainty find highly entitative groups particularly attractive (Hogg, Sherman, Dierselhuis, Maitner, & Moffitt, 2007). The strict definition and boundaries of highly entitative groups provide clear outlines of what membership means and how to behave as a member (Rydell & McConnell, 2005). Individuals who are high in uncertainty increase identification with a highly entitative group (Hogg et al., 2007). Someone experiencing self-uncertainty will be motivated to reduce that self-uncertainty by conforming to a group that is well defined and cohesive because the group provides

strict definitions of current and future behaviors, attitudes, and communication styles. Individuals high in uncertainty who prescribe to in-group attitudes perform in-group validations by comparing themselves to their more prototypical peers. Identification with a group entails transformation toward in-group appropriate behavior and can include dressing a certain way, believing specific ideologies, or even talking and understanding different slang types. Not understanding slang words may lead to a threat to one's sense of prototypicality which may lead to feelings of peripheral positioning or self-uncertainty. As a result, individuals who are left out of group-specific slang should be motivated to regain entry through prosocial group behaviors and by increasing their identification with the group.

### **Slang as Informal Language**

Communication rhetoric changes based on intergroup dynamics. Specifically, that all groups have their own rhetoric that are defined by norms. This informal language is developed to explain situations, behaviors, and different properties of the group. These properties can shift appropriately depending on context and social situations.

**Communication accommodation theory.** Social identity theory research (Hogg & Reid, 2006) suggests that individuals increase their self-prototypicality with their groups by matching normal language features such as accents or word choice with their in-groups (See McGlone & Giles, 2011). Word choices adjust and change based on the individual or group with whom an individual communicates (Erickson, 1978).

Communication accommodation theory (CAT) explores how group members can

selectively use verbal communication to increase or decrease prototypicality within the group. Their selection of group-based communication varies depending on the social context and with whom they are communicating. The theory posits that people pursue distinctiveness, similar to the social identity perspective. This accommodation of speech can manifest in multiple manners: discourse, information, and even demeanor (Coupland, Coupland, Giles, & Henwood, 1988). For example, a student may explain to a peer that a recent exam was “cake AF” while explaining to a more professional peer that the recent exam was “tough, but if you studied, it was manageable.”

CAT has demonstrated that individuals accommodate their speech patterns to out-group patterns when an out-group is salient because individuals attend to social situations (Giles & Wadleigh, 2008). These linguistic movements occur dynamically and reference specific contextual social interactions. Moreover, CAT explains how an individual’s word choice and communication rhetoric requires that the individual examine social contexts to accommodate the multiple groups with which she or he identifies.

**Ethnolinguistic identity theory.** Expanded from CAT, ethnolinguistic identity theory provides a contextual explanation for accommodations in language (Hildebrandt & Giles, 1983). Supported by the explanation of identity management techniques from social identity theory, ethnolinguistic identity theory expands on the necessity for group identification through communication (Giles & Johnson, 1981; Giles & Turner, 1981). Specifically, people who encounter out-group members change group identification by switching to their in-group languages, slang, word choice, and accents (Bourhis, 1979; Taylor & Royer, 1980). The linguistic characteristics of a group accommodate and shift

towards prototypical group speech whenever out-group identities are most salient (Giles & Johnson, 1987).

Specific communication rhetoric employed by in-groups is ‘slang’ (Giles et al., 1979). As the group acquires more members, members use new and inventive slang to differentiate between the less relevant or peripheral members and more central or prototypical members, allowing for prototypical members to retain unique and distinct ‘members only’ characteristics (Kane & Rink, 2016). Slang usage creates a means to differentiate the in-group from relevant out-groups. In effect, slang creates what Brewer and her colleagues (Leonardelli, Pickett, & Brewer, 2010; see also Brewer, 1991, 2003) call “optimal distinctiveness”. Slang provides in-group members with an optimal level of assimilation to the in-group (commonalities through shared language and slang) and distinctiveness from the out-group (slang that allows people to feel that they are unique in comparison to relevant out-groups). In-group members use slang to confirm membership on the basis of understanding the prototypical norms (Nunberg, 1978; Spear & Miller, 1982).

“California English” is the variety of slang words associated with members of urban and coastal California (Podesva, D’Onofrio, Van Hofwegen, & Kim, 2015). California talk includes phrases such as “hella” and the much more family friendly alternative “hecka,” which is defined by both count nouns and as a positive intensifier adjective (Hankamer, 2016). “Hella” and “hecka” are used commonly by northern Californians through many decades of time. Slang also transcends geographical boundaries (Keller, 2006). “Jive talk” was distinctive 40’s era slang for jazz-listening

members, which included usage of drugs and musical style (Calloway, 1944; Clark, 2001). “Jeff” is a slang word describing a person who lacks in general hipness or is not a devotee to jazz compared to his “hep cat” counterpart (Gillaspie, 2002). These slang examples may have been used decades apart, but they tethered their speakers together. Slang binds its users together, and members who shared common traits felt that they belonged to something greater than just their own individual contribution (Hogg & Reid, 2006; see also Adams, 2009).

### **Overview of the Research**

HSU students will read a ‘typical HSU’ text message exchange between two students, which utilizes frequently used HSU ‘slang’. Some participants will read a passage that defines the slang used in the conversation (‘known’ slang condition) while others will not have the slang defined (‘unknown’ slang condition). This experiment focuses on how being privy to or understanding the in-group’s slang affects a variety of social identity and belonging needs, and importantly, how being ‘out of the loop’ or not understanding the group’s slang isolates students to the periphery of their group.

**Hypothesis One.** Participants who experience high self-uncertainty will identify more strongly with the HSU student body than their counterparts who are low in self-uncertainty.

**Rationale.** The uncertainty-identity literature (Hogg & Mullin, 1999; Grieve & Hogg, 1999; Mullin & Hogg; see also Gaffney et al., 2014) demonstrates that feelings of

uncertainty produce a negative drive state in which individuals align with a group's prototype.

**Hypothesis Two.** Participants in the known slang condition will feel more prototypical in their HSU identity than those in the unknown slang condition.

*Rationale.* Social identity theory and communication accommodation theory assert that understanding and using slang increases a group member's sense that they are a prototypical group member (Giles & Reid, 2004; see also Hogg & Reid, 2006).

**Hypothesis Three.** Participants in the unknown slang condition will perceive HSU students as more entitative than those in the unknown slang condition.

*Rationale.* Unknown slang will increase the perceptions of a group's cohesiveness and distinctiveness because slang unifies groups. When individuals do not understand out-group behaviors, they are likely to perceive that out-group is acting as a cohesive unit (Lickel et al., 2000) which will allow for predictability of its members (Rydell & McConnell, 2005). This should similarly extend to the in-group when members feel left out of their conversation and thus left out of the group.

**Hypothesis Four.** Participants who experience high self-uncertainty will feel more prototypical of HSU in the known slang condition than their counterparts in the unknown slang condition.

*Rationale.* Hohman et al., (2017) suggested that feelings of being on the periphery lead to increased group identification for self-uncertain participants. Slang that is not understood should make participants feel like they are on the periphery, which should lead increased feelings of group membership.

**Hypothesis Five.** Participants who experience high self-uncertainty will report higher levels of group-identification in the known condition than those who in the unknown slang condition.

*Rationale.* Similar to the Hypothesis 1, individuals who are high in self-uncertainty will identify more strongly with the group because the group confirms the individual's knowledge of group norms, attitude and language. Gaffney et al., (2014) demonstrated that feelings of uncertainty produce a negative drive state in which individuals align with a group's prototype. The prototypical language – slang - is used to differentiate between in-group members who understand the context and meaning of slang compared to out-group members who do not understand (Adams, 2009). Specifically, understanding the in-group's slang can buffer the effects of uncertainty through group identification.

**Hypothesis Five(a).** Alternatively, participants who experience high self-uncertainty might report higher levels of group-identification in the unknown slang condition than those in the known slang condition.

*Rationale.* Because exposure to unfamiliar slang likely magnifies the experience of self-uncertainty, it is plausible that uncertainty and being subjected to unknown slang will propel individuals towards the group, in an effort to restore prototypicality (see Hohman et al., 2017). This hypothesis proposes a likely alternative to Hypothesis 5, given relevant literature.

**Hypothesis Six.** To the extent that participants high in self-uncertainty who are exposed to unknown slang experience a decrease in HSU prototypicality, they will increase their social identification with HSU.

*Rationale.* Self-uncertainty changes the positions and evaluations of in-group identification. Individuals high in self-uncertainty who feel their positions in the group threatened (prototypicality) might engage in-group pro-social behaviors as demonstrated in increased in-group identification (Belavadi & Hogg, 2016).

**Hypothesis Seven.** Participants who experience high self-uncertainty will report higher levels of group entitativity in the unknown slang condition than those in the known slang condition.

*Rationale.* Entitativity research identifies social interactions as properties of groups that make groups appear to possess common goals, fates, and a certain “groupness” (Campbell, 1958; Hamilton & Sherman, 1996). Uncertainty-identity theory research had shown that individuals identify with highly entitative groups when they experience self-uncertainty (Hogg et al., 2007). Group entitativity perceptions are significantly correlated with reported identification (Lickel et al., 2000). Peripheral members are motivated by their status in the group, they can move closer to the group by viewing the group as entitative when experiencing threats to prototypicality. As a result, the group may appear more cohesive and homogeneous as a unit to peripheral members (Rydell & McConnell, 2005)

## Method

A pilot study received Institutional Review Board (IRB) approval under IRB number 16-149. The pilot study ( $N = 73$ ) examined Humboldt State University (HSU) students' perceptions of casual communication and slang. This pilot study was conducted with HSU students to identify two criteria of slang words. The first criterion was 'known' words that most HSU students recognize as slang in their campus community. The second set of words were 'unknown' and made up for this project. The pilot examined the recognizability and plausibility of all 'known' and 'unknown' slang words. The pilot study also identified the frequency with which HSU students come into contact with 'known' slang. Manipulations were created based on the results of the pilot study for slang words. Specifically, the slang words were divided into two categories ('known' slang words which students understand vs. 'unknown' slang words which students do not understand).

**Independent ethics committee and ethical adherence.** IRB application was submitted and approved with data collection date starting on April 4th of 2017. The IRB number for the project is 16-238.

**Participants and design.** Participants for this experiment were Humboldt State University (HSU) students over the age of 18. Power analysis using similar self-uncertainty manipulations of high self-uncertainty ( $M = 6.62$ ,  $SD = 1.42$ ) and low self-uncertainty ( $M = 6.05$ ,  $SD = 1.42$ ; Gaffney et al., 2014) against ostracism manipulations of people who feel 'out of the loop' on pop culture references ( $M = 3.49$ ,  $SD = 1.86$ ) and

individuals who feel in ‘the loop’ ( $M = 2.15$ ,  $SD = 1.34$ ; Iannone et al., 2018) estimate that a minimum of 80 participants were needed to find a statistically significant interaction between the four manipulation conditions, power = .85 utilizing a small partial eta squared effect of size = .02.

**Participant information.** Overall, HSU students ( $N = 119$ ) mostly were self-identifying females (70% = Female) around the age of 21 ( $SD = 5.9$ ).

**Recruitment.** SONA Systems Psychology Research Pool recruited participants who scheduled their own appointments. They received partial course credit for their participation. Participants were recruited in classes with professors’ permission

Participants were randomly assigned to experimental conditions in a 2 (uncertainty: high vs. low) x 2 (slang: known vs. unknown) factorial design.

## **Materials and Apparatus**

The research took place in multiple reserved lab spaces at HSU in the Behavioral and Social Sciences Building.

**Computer and computer room.** Participants accessed a computer inside a laboratory space. Each room is sound resistant.

**Survey website.** Customer survey platform, Qualtrics, hosted the experiment, gathered and stored the data. Qualtrics is a private research company that allows users to collect data online using a user friendly and professional platform.

**Script.** To ensure consistency of research assistant’s introduction and reduce research bias, research assistants read off a printed script (see Appendix G). Participants

were told that they are reading a typical conversation of HSU students and that the slang words seen are used frequently.

**Research assistants.** Research assistants were responsible for turning on the computer, preparing the online survey, greeting the participant, explaining procedures, granting participant credit, waiting, debriefing the participant, and escorting them from the lab area.

### **Independent Variables and Measures**

At the start of the survey, participants signed informed consent. Research assistants explained that participants are completing a survey regarding typical HSU student text messages.

**Slang manipulation.** Participants read a screenshot of a conversation that has been regarded as highly typical of HSU conversations with the slang words as frequently used or understood. Participants then read a screenshot of a conversation including slang words that they understand or slang words that they do not understand (see Appendix B). A manipulation check asked students to define the slang word and the confidence of their definition. Students in the known slang condition will be provided with a list of slang words with their definitions. Students in the unknown slang condition will be provided with a partial list of slang words with their definitions.

**Uncertainty-prime.** Participants completed either a high or a low self-uncertainty prime adapted from the uncertainty-identity literature (e.g., Hogg et al., 2007; Hohman et

al., 2017; Goldman & Hogg, 2016; Grant & Hogg, 2012). For the high self-uncertainty condition, participants completed the following instructions (See Appendix C):

*“Please take a few moments to think about yourself, your future, and where you are going – think about the things that make you feel deeply uncertain and then list and describe 3 things that make you feel uncertain and or confused about who you are.”*

For the low self-uncertainty condition, participants will be required to read a similar statement, *“Please take a few moments to think about yourself, your future, and where you are going – think about the things that make you feel very confident and then list and describe 3 things that make you feel confident and or clear about who you are.”*

### **Dependent Variables and Measures**

**Self-prototypicality.** Participants filled out a 5-item measure of self-prototypicality adapted from previous studies (van Knippenberg & van Knippenberg, 2005): I represent what is characteristic of being an HSU student. I am a good example of an HSU student. I am similar to most HSU students. I share common interests and ideals with HSU students. I am representative of HSU students. (1 = *Strongly Disagree*, 7 = *Strongly Agree*). The items of self-prototypicality were found to have an acceptable internal consistency ( $\alpha = .86$ ).

**Group-identification.** Participants filled out a 9-item measure of group-identification adapted from Hogg and Hains (1996): My overall impression of the HSU student body is favorable. I would stand up for the HSU student body if it was criticized. I identify with being a HSU student. I feel that I belong as a HSU student. Being a HSU

student is important to me. In general, I feel like a HSU student. I fit in well as a HSU student. I am similar to other HSU students. I identify strongly with the HSU student body (1 = *Strongly Disagree*, 7 = *Strongly Agree*). The items of group-identification were found to have an acceptable internal consistency ( $\alpha = .93$ ).

**Entitativity.** Participants filled out a 9-item measure of entitativity adapted from previous research (Hogg et al., 2007): There are strong ties among Humboldt State students. Humboldt State is a cohesive group. Humboldt State students are similar to each other. Humboldt State students have a common sense of fate. Humboldt state students are organized. Humboldt State students are purposeful. Humboldt State students are structured. Humboldt state students are distinct and different from other groups. Humboldt state students have defined roles and functions. (1= *Strongly Disagree*, 7 = *Strongly Agree*). The items of entitativity were found to have an acceptable internal consistency ( $\alpha = .81$ ).

**Ostracism.** Elements adapted from ostracism literature surrounding belonging needs will be included (Iannone et al., 2018). Participants will fill out an 11-item measure of the negative consequences of ostracism: I felt disconnected. I felt rejected. I felt like an outsider. I felt good about myself. I felt liked. I felt invisible. I felt meaningless. I felt non-existent. I felt powerful. I felt I had control over the course of the interaction. I felt superior. (1 = *Not at All*, 7 = *Very Much*). These measures have been previously validated (Williams, 2009). The items of ostracism were found to have an acceptable internal consistency ( $\alpha = .80$ ). See Table 1. For a list of correlations, means, and standard deviations.

Table 1.  
*Means, Standard Deviations, and Correlations (N = 111)*

Variable	1	2	3	4	<i>M</i>	<i>SD</i>
1. Entitativity	(.81)				4.69	0.78
2. Prototypicality	.40*	(.86)			4.51	1.14
3. Identification	.51*	.73*	(.93)		5.04	1.11
4. Uncertainty	.07	.08	.02	(.88)	3.87	1.57
5. Age	.01	-.08	.07	-.12	21.04	6.00

*Note.*  $p < .05$ . Items in diagonal denote reliability alpha.

## **Procedure**

**Introduction and informed consent.** SONA systems notified participants with an email reminder for location, time, and date of experiment. Students left their possessions in another room and entered the reserved experiment room. Research assistants provided participants with informed consent and asked them to sign and date it if they agree to participate. If participants complied with informed consent, research assistants introduced themselves; provided a brief description of the study and directed participants to proceed to the questionnaire after the research assistant exits the room. If participants chose not to participate, they left the room without consequence. Note, that participants who left were still eligible for participation credit.

**Survey questionnaire.** All survey questions and manipulations were completed on Qualtrics.

**Debriefing.** Participants were debriefed and thanked for their time. A re-consent was included after participants read the full contents of the debriefing (See Appendix D).

## **Management of Risks and Benefits**

Participants may have felt a sense of self-uncertainty and ostracism upon reviewing unknown slang words. It is possible that these negative consequences affected their understanding and/or identification as a college student. Complete debriefing should have mitigated this potential issue and research assistants provided handouts of counseling services on campus if necessary.

## Results

### Data Storage, Screening, and Transformation

Results from the survey were output into a .csv-formatted file into a specific directory on a U: drive from the Qualtrics website. The U: drive was only accessible to principal investigators, research assistants, and members of the thesis committee.

The principle investigator and research assistants utilized a free open source program for data organization and analysis, Rstudios. Qualtrics uploads files in .csv format. Principle investigator utilized Rstudios directly analyzed data through this format. Tests were analyzed through multiple comparison designs to examine differences between conditions.

Data were filtered for completed responses. Factorial ANOVA's tested all hypotheses, comparing both levels of uncertainty and slang on group identification, self-prototypicality, and perceived entitativity. Simple main effects tests followed up each analysis to deconstruct all significant interactions. Data were analyzed for assumptions of ANOVA and general normality assumptions. Homogeneity of variance utilized a ratio of largest to smallest variance of  $< 4:1$  while homogeneity of sample size issues was scrutinized under ratios of largest to smallest sample size of  $< 2:1$ . Skewness and Kurtosis were examined for normality and outliers. Prototypicality and identification with Humboldt State were found to be positively skewed. Square root transformations were the most appropriate transformations for correct for prototypicality and identification

with HSU. Other scores were found to be normal distributed. Data imputation was not found to be necessary.

### **Manipulation Check and Hypothesis**

**Manipulation check.** A manipulation check on slang condition examined confidence in participants' understanding of the text conversation. There was a significant difference between reported confidence among participants in the known condition ( $M = 4.86, SD = 1.24$ ) and the unknown condition ( $M = 3.30, SD = 1.33$ ),  $t(165) = 7.90, p < .001, 95\% CI [1.16, 1.96]$ . A new variable was created to demonstrate high levels of confidence for the known condition and low levels of confidence for the unknown conditions.

**Hypothesis One.** Hypothesis one predicted that participants who experience higher levels of self-uncertainty would report higher scores on scales of identification with the HSU student body compared to their lower self-uncertainty counterparts.

Results from ANOVA suggest that there was not a significant difference between the high and low uncertainty primes on identification  $F(1,109) = 0.43, 95\% CI [-0.28, 0.14], \eta_p^2 = .010$  between participants in the high uncertainty condition ( $M = 4.85, SD = 1.22$ ) and the low uncertainty condition ( $M = 5.14, SD = 0.99$ ).

**Hypothesis Two and Three.** Hypothesis two predicted that that participants in the known slang condition would feel more prototypical of the HSU identity than their unknown slang counterparts. Lower scores represent a lower amount of perceived prototypicality.

Hypothesis three predicted that participants in the known slang condition would report larger amounts of perceived entitativity than their unknown slang counterparts. Lower scores represent a lower amount of perceived entitativity.

Results from ANOVA suggest that there was not a significant difference between the two groups of slang usage;  $F(1,109) = 0.92$ , 95% CI [-0.31, 0.11],  $\eta_p^2 = .007$ .

Participants in the unknown condition reported slightly lower prototypical of an HSU identity ( $M = 4.98$ ,  $SD = 1.09$ ) than their known counterparts ( $M = 5.03$ ,  $SD = 1.14$ ).

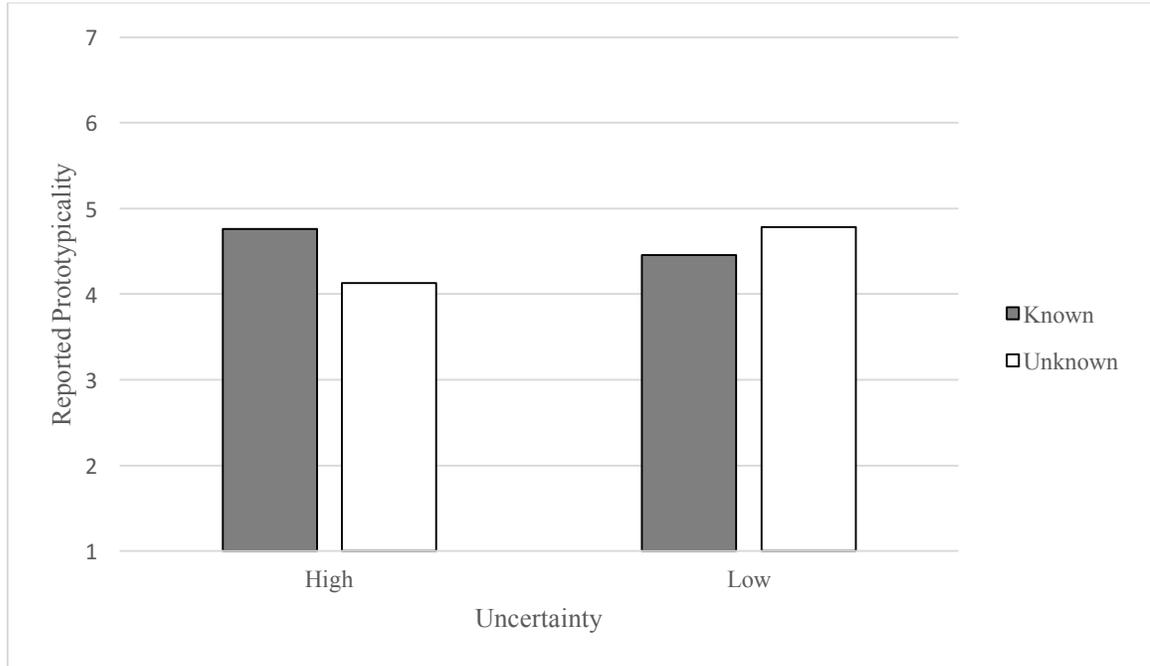
Results from ANOVA suggest that there was not a significant difference between the two groups of slang usage;  $F(1,109) = 0.02$ , 95% CI [-0.14, 0.16],  $\eta_p^2 = .0001$ .

Participants in the unknown condition reported slightly higher entitativity ( $M = 4.68$ ,  $SD = 0.75$ ) than their known counterparts ( $M = 4.54$ ,  $SD = 0.78$ ).

**Hypothesis Four.** Hypothesis four predicted a two-way interaction between self-uncertainty and slang on feelings of prototypicality. There was no main effect for uncertainty  $F(1,106) = 1.01$ , 95% CI [-0.14, 0.28],  $\eta_p^2 = .010$  or for slang  $F(1,106) = 0.77$ , 95% CI [-0.31, 0.12],  $\eta_p^2 = .010$ .

The interaction is not significant;  $F(1,107) = 3.85$ , 95% CI [0.00, 0.42],  $\eta_p^2 = .030$ . However, age was included in the overall model because age tends to be an important variable when discussing college-based language use. When controlling for age, the interaction was significant,  $F(1,107) = 4.42$ , 95% CI [0.01, 0.44],  $\eta_p^2 = .040$ . Simple effects clarify the interaction. There was a significant difference for the high uncertainty condition  $F(1,52) = 4.23$ ,  $p = .04$ ,  $\eta_p^2 = .040$ , such that under high uncertainty, participants in the known slang condition ( $M = 4.76$ ,  $SD = 1.17$ ) reported

higher levels of prototypicality compared to their counterparts in the unknown slang condition ( $M = 4.13$ ,  $SD = 1.28$ ). There was not a significant difference in the low uncertainty condition  $F(1,54) = 0.50$ ,  $p = .48$ ,  $\eta_p^2 = .001$ . (See figure 1 for means)

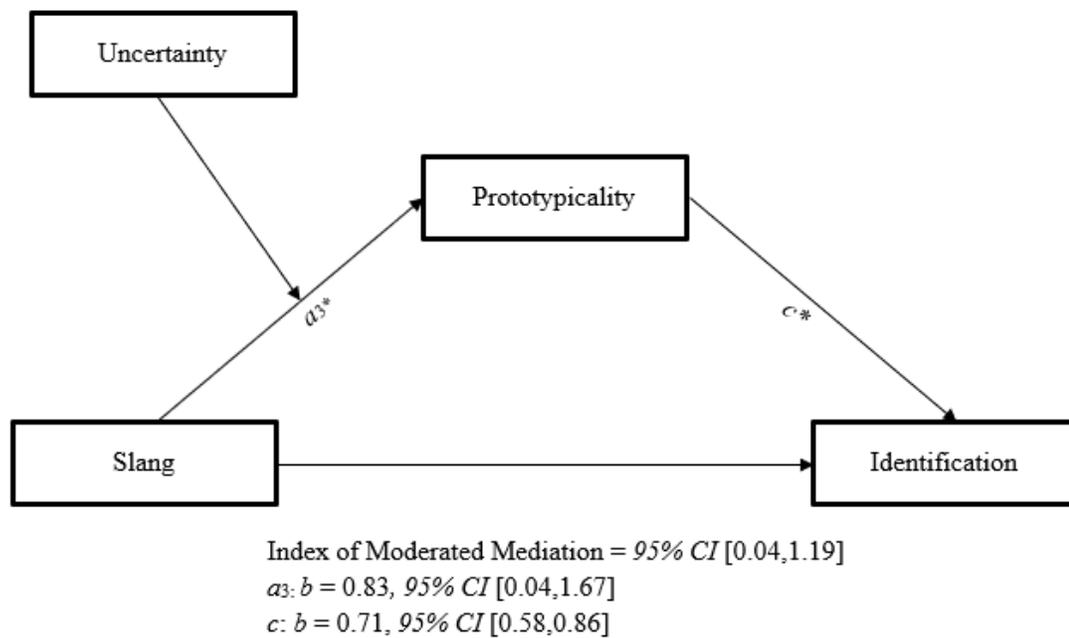


*Figure 1.* Estimated means of the interaction between uncertainty and slang. Conditions between uncertainty suggest that the known and high report high levels of prototypicality compared to all other conditions.

**Hypothesis Five(a).** Hypotheses five and five-a predicted an interaction between self-uncertainty and exposure to slang on feelings of group identification in HSU participants. There was no main effect for uncertainty  $F(1,107) = 0.47$ , 95% *CI* [-0.14, 0.28],  $\eta_p^2 = .0003$  or for slang  $F(1,107) = 0.38$ , 95% *CI* [-0.27, 0.14],  $\eta_p^2 = .0001$ . Results from the ANOVA suggest that there is no significant interaction between groups of uncertainty and rhetoric;  $F(1, 107) = 0.13$ , 95% *CI* [-0.17, 0.25],  $\eta_p^2 = 0.001$ .

**Hypothesis Six.** Hypothesis six tested a moderated mediation model to examine the indirect effects of prototypicality from the interaction between slang and uncertainty on identification. For this analysis, Model 7 was used from the PROCESSR package adapted from Hayes (2014) with 5000 bootstrapped samples to test for a moderated mediation.

The index of moderated mediation 95% *CI* [0.03, 1.19] suggested that an indirect effect existed for the high uncertainty condition 95% *CI* [0.24, 0.53] but not for the low uncertainty condition 95% *CI* [-0.21, 0.00] Specifically, the known slang 95% *CI* [0.02, 0.98] produced greater levels of prototypicality  $b = 0.85$ , 95% *CI* [0.04, 1.68] which in turn predicted in-group identification  $b = 0.71$ , 95% *CI* [0.57, 0.86]. (See Figure 2 for means)



*Figure 2.* Prototypicality Mediates the Relationship between Slang and Identification after being Moderated by Uncertainty.

**Hypothesis Seven.** Hypothesis seven predicted that feelings of perceived entitativity would vary as a function of the interaction between self-uncertainty and slang. There was no main effect for uncertainty  $F(1,107) = 0.42$ , 95% *CI* [-0.20, 0.40],  $\eta_p^2 = .00004$  or for slang  $F(1,107) = 0.29$ , 95% *CI* [-0.27, 0.15],  $\eta_p^2 = .0003$ .

Results from the ANOVA suggest that there was not a significant interaction between groups of uncertainty and rhetoric;  $F(1,107) = 0.76$ , 95% *CI* [-0.17, 0.43],  $\eta_p^2 = 0.0007$ .

## Discussion

This study focused on the interactions between feelings of uncertainty and slang on belonging needs and in-group prototypicality. Understanding and fulfilling group-established belonging needs are key to an individual's sense of self (Tajfel & Turner, 1979). Belonging to a group provides information and directions to sustain and increase membership positions, which ultimately generate a sense of esteem or pride (Tajfel, 1972). A large part of a group's communication occurs through linguistic codes, which act as identity markers (Bourhis et al., 1973). Specifically, group members can become privy to speech-based in-group markers which solidifies membership within a group (Giles, 2005; Giles et al., 1979). Furthermore, this understanding of communication can be accommodated as an expression of membership in which the differences of speech can be accentuated or reduced. This is essential not only to confirmation of membership but feeling central to the group prototype. However, when people do not understand norms of a desired ingroup, this can threaten their prototypicality and thus their group identification. Slang language affects a variety of social and belonging needs.

Being uninformed about these specific in-group markers may produce feelings of uncertainty, which acts as a negative drive, especially in areas important to the self-concept (Mullin & Hogg, 1999). Group membership is particularly effective at uncertainty reduction because it also provides a positive social identity through in-group ethnocentrism (Festinger, 1954; Hogg, 2000). When individuals feel self-uncertain about

their understanding of their group's slang, they are motivated to redeem themselves by acting in a pro-social manner that is consistent with their group.

In this study, I wanted to examine the power of informal rhetoric on group identity and perceived in-group entitativity. My research question examined slang words as the linguistic code driving in-group membership. Student participants were randomly assigned to groups with the definition of slang words provided for them or left completely uninformed. Some of the results suggest that slang language can be used as a vehicle for group identification and norms. Results from hypothesis 6 suggest that the interaction of slang and uncertainty can predict group-identification which results in increased self-prototypicality.

### **Uncertainty-identity**

Previous work suggests that uncertainty acts as a negative which motivates individuals to derive meaning from their groups, in turn, driving them to align closer to the prototypes of their group (Goldman & Hogg, 2016; Hohman et al., 2017). The current study predicted that participants experiencing high uncertainty would align more with their group than those in the low uncertainty condition. This is largely consistent with previous literature (e.g., Gaffney et al., 2014) in which feelings of uncertainty pushed members of a political group further in a pro-normative direction. The current work further predicted that participants would also be pushed to align with their group as a result of not understanding in-group slang, a process this work posited, that rests in self-uncertainty and belongingness needs.

### **Communication Accommodation**

Results partially supported the notion that language is a group normative feature. Albeit non-significantly, the self-reported feelings of entitativity and group identification means are consistently higher in the unknown conditions than the known conditions. These findings are consistent with the suggestions that foreign language that is uncommon to the in-group bolsters feelings of entitativity and perceptions (Lickel et al., 2000).

The original pilot study that identified slang words requested students to mark the frequency at which they hear or use the specific word. The real words were found from various sources in an attempt to discover slang words whereas fake words were generated by peers and colleagues. Future work might attempt to identify these words using various internet search engines for word frequency and representative frequency estimates (Blair, Urland, & Ma, 2002).

Slang words themselves are a function of identity that is constantly changing within different cultures, especially young college students (Samy Alim & Pennycook, 2007). The language that students choose to employ is partially organic and developed within their own in-group norms. For this reason, out-group researchers may have a difficult time bridging the gap due to an inconsistency of group attitudes or beliefs. Group members (e.g., students, gangs, cyclists) are the developers and keepers of the group specific words and phrases and are the ones who can quickly identify others as authentic or not. Acquiring the latest linguistic phenomenon may not be difficult because

especially if they change as soon as they are identified. As some members of the California Bay Area may say “Erry day the Slang Change” (Samy Alim & Pennycook, 2007).

Lastly, the words for the manipulation were piloted, but not the manipulation itself. The story consisted of two friends who discussed a non-student’s negative behavior. The story should have been piloted for slang believability and how understandable the situation was. A semantic analysis was conducted and participants in the unknown condition typically used less words than participants in the known condition. However, this does not get at the content of the story itself.

### **Limitations**

One important limitation was the pilot study for slang word usage, manipulations were created from a pilot study in which frequency was used to establish slang words. While the slang words themselves may have been legitimate, the testing environment in which may have been too formal. Students may have been unconsciously primed to behave in an academic manner which may have disregarded the salient identity of being a student. That is, texting is wholly organic and “gossiping” about other students is not entirely professional. Instead of having a text-based image, utilizing confederates to “show” participants may have a more authentic effect.

Another potential limitation was the use of visual-only manipulation. Previous research suggests that individuals perceive more from both visual/audio than visual only (Mayer, 2005, 2009, 2011). Simply put, working memory is processed through two

complementary channels but both have limitations of capacity. One of the channels processes visual information and the other processes via the phonological loop – sound. Utilizing both may lead to an uptick of thorough processing. This could be built into future manipulations by utilizing a text-to-speech method.

### **Future Directions**

Results of this study provide information and opens up opportunities of investigations for future work. This work can be expanded to groups whose language is largely defined by group norms or behaviors (Bruner, Dunlop, & Beauchamp, 2014; Thomas et al., 2017). For example, cyclists are largely defined by their bicycles and abilities. Jargon becomes an important part of communicating in-group prototypicality in groups that are defined by their “gear”. For example, “I don’t even bother with grannygearing anymore, 11 - 42 is gonna complete the whole range.”

Another important direction for this research is employing a different methodology in which instead of reading a text-based manipulation, participants write down their own cognitions and thoughts. That is, participants could record and register their own slang words with group-based prompts. “e.g., please write down what being in the group means to you”. Modern techniques could examine the linguistic properties of communication and define which topics are important to the participants. Linguistic intergroup bias literature suggests that positive in-group language is usually described in an abstract way, while negative in-group language is concrete (Maass, 1999; Maass, Salvi, Arcuri, & Semin, 1989). These properties could provide further information on

how slang may have inherent traits, which can influence a listener to react in a specific way.

### **Concluding Remarks**

This research is important because it suggests that slang is a key part of identification and communications of groups. The results suggest that uncertainty acts as a negative-drive state that pushes peripheral members to behave like a more prototypical member. This suggests the importance of knowing contextual group norms under feelings of uncertainty. Because the norms provide a map for group identification. The research begins to open up what these linguistic norms are, specifically that slang may play a role in the informal aspects of group membership.

## Conclusions

Originally, I was inspired by previous social identity literature that suggested certain phrases (e.g., “we are part of the group”) had a direct effect on self-reported feelings of group identification, group-prototypicality, and perceived entitativity. As a Californian traveling in Europe, I was frequently asked questions as to what a certain slang phrase meant or why the linguistic structure was important. This struck me in two ways: that Europeans recognized that I had a different linguistic identity from them and that mine was cohesive enough to spot large differences between our two groups.

At Humboldt State University, the students are fairly removed from the rest of the population, geographically, politically, and demographically. Consistent with previous literature, I believed that this would create distance in out-group and in-group norms. This work provides a first step toward uncovering the social effects of informal language in distinct populations.

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## Appendices

### Appendix A

#### **Agreement to Participate in the Humboldt State Student's Text Study.**

Please note that this survey is only for Students. You are being asked to participate in a research project that examines the structure of text messages at HSU and how they are perceived and understood by HSU students. This study will take about 8-10 minutes of your time. This research is conducted by Ben Chu of Humboldt State University (Bchu@humboldt.edu).

PURPOSE. The purpose of this study is to determine how students feel about slang.

ELIGIBILITY. To take part in this study, you must be over the age of 18.

PARTICIPATION. During the study, you will complete a short questionnaire.

RISKS OF PARTICIPATION. The risks associated with taking part in this study are minimal, and not higher than those faced in everyday life. The risks include the possibility that you might be reminded of things that make you feel uncomfortable. You are free to stop the survey at any time.

BENEFITS OF PARTICIPATION. Participation in this study will allow you to engage in the research process and help to inform our knowledge of how Humboldt State Students view slang usage

COMPENSATION: as a student participant, you will receive extra credit through SONA or through your professor.

VOLUNTARY PARTICIPATION. Your participation in this study is completely voluntary. You may stop or withdraw from the study at any time, or refuse to answer any particular question for any reason without it being held against you. Your decision whether or not to participate will have no effect on your current or future connection with anyone at Humboldt State University.

CONFIDENTIALITY: This anonymous online study is being conducted through the website Qualtrics, an independent internet service company. You may find out more about this website, if you wish, at [www.qualtrics.com](http://www.qualtrics.com). No identifying information about you is being collected. To protect the anonymity of your responses, no IP addresses will be stored and Qualtrics uses industry-standard security methods to protect data transmission and storage. Survey data will be stored only on a password-protected computer. All individual answers will be presented in summary form in any papers, books, talks, posts, or stories resulting from this study. We may share the data set with other researchers, but your identity will not be known.

FURTHER INFORMATION. If you have any concerns with this study or questions about your rights as a participant, contact the Institutional Review Board for the Protection of Human Subjects at [irb@humboldt.edu](mailto:irb@humboldt.edu) or (707) 826-5165.

CONSENT. Clicking the “Yes” entry below means that you understand the information on this form, that any questions you may have about this study have been answered, and that you are eligible and voluntarily agree to participate. This link will direct you to the survey. Clicking the “No” entry will close this page and exit the survey.

- Yes, I agree to participate in this study and I am at least 18 years old.
- No, I do not agree to participate.

## Appendix B

## Condition A

As part of other work, we check in to find out how people feel about themselves when taking part in school activities. We would like to know a little about how you think about yourself and the world. Given the state of the world, you might be experiencing an increasing sense of uncertainty about yourself and the future.

There is increasing uncertainty and confusion about what it means to be a student. Take a few moments to think about yourself and your future, please list and describe 3 things that make you feel uncertain.

1. Makes me feel uncertain \_\_\_\_\_
2. Makes me feel uncertain \_\_\_\_\_
3. Makes me feel uncertain \_\_\_\_\_

## Condition B

As part of other work, we check in to find out how people feel about themselves when taking part in school activities. We would like to know a little about how you think about yourself and the world. Given the state of the world, you might be experiencing an increasing sense of uncertainty about yourself and the future.

Please take a few moments to think about yourself and your future, and please list and describe 3 things that make you feel confident.

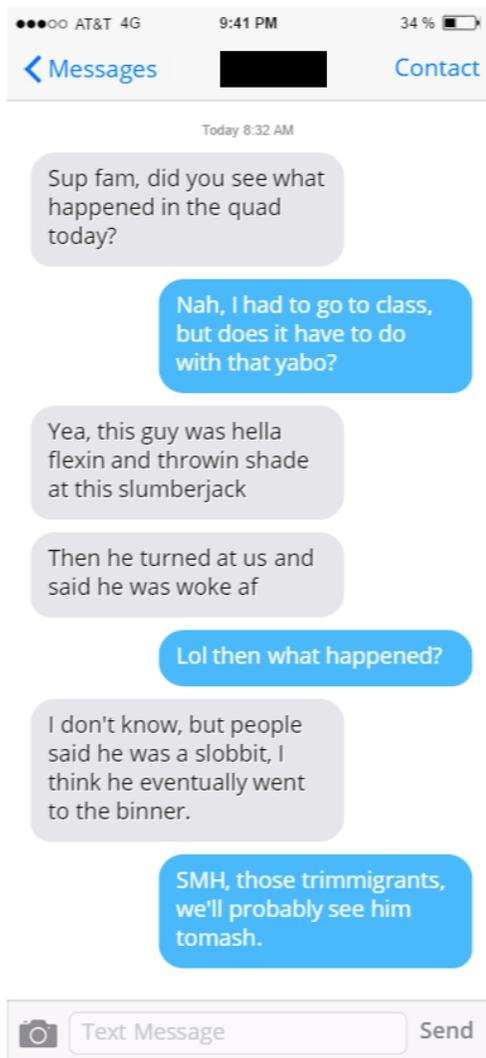
There is increasing certainty and clarity about what it means to be a student. Take a few moments to think about yourself and your future, please list and describe 3 things that make you feel confident.

1. Makes me feel confident \_\_\_\_\_

2. Makes me feel confident \_\_\_\_\_

3. Makes me feel confident \_\_\_\_\_

## Appendix C

**Known Slang Condition**

Fam - Reference to those who are extremely close

Quad - Square open meeting place

Yabo - One who acts foolish

Hella - Northern California for a supplemental intensifier

Flexin - Showing off, both muscles and ego.

Throwin shade - being disrespectful

Slumberjack - Student at HSU who sleeps through class

Woke - Being aware of the real truth

AF - abbreviation for 'as fuck',

Slobbit - Person who chooses not to wear shoes

Binner - Garbage bin

SMH - Abbreviation for 'shaking my head'

Trimmigrants - People from outside of Humboldt county looking for work in the cannabis industry

Tomash – Tomorrow

### **Unknown Slang Condition**

Fam - [Sorry, no definition is provided because the word is commonly used]

Quad - Square open meeting place

Yabo - [Sorry, no definition is provided because the word is commonly used]

Hella - [Sorry, no definition is provided because the word is commonly used]

Flexin - Showing off, both muscles and ego.

Throwin shade - being disrespectful

Slumberjack - [Sorry, no definition is provided because the word is commonly used]

Woke - Being aware of the real truth

AF - abbreviation for 'as fuck',

Slobbit - [Sorry, no definition is provided because the word is commonly used]

Binner - [Sorry, no definition is provided because the word is commonly used]

SMH - [Sorry, no definition is provided because the word is commonly used]

Trimmigrants - Migrates from outside of Humboldt county looking for work in the marijuana industry.

Tomash - [Sorry, no definition is provided because the word is commonly used]

## Appendix D

### **Debriefing**

Thank you for your participation, you have now completed the study. The study you just participated was done for more reasons than just analyzing text messages of HSU students.

The purpose of this study is to determine how HSU students identify with groups after being randomly assigned to conditions of high or low uncertainty and the conditions of known or unknown slang. Uncertainty Identity literature has shown that feelings of uncertainty motivate individuals to align with group.

We are also interested in how you feel about the HSU student body. The slang prompt that you read was made up for the purpose of this study (although we did base this transcript on some known slang made by fellow students). We are particularly interested in the HSU student body and how different and unique it is perceived by its students.

If you have any questions about the study, feel free to contact the principal investigator, Ben Chu at [Bchu@humboldt.edu](mailto:Bchu@humboldt.edu) or the faculty advisor, Dr. Amber Gaffney at [amber.gaffney@humboldt.edu](mailto:amber.gaffney@humboldt.edu) or 707-826-4313. Thank you for your participation!

If you have concerns regarding the ethics of this survey, please contact the Chair of the Humboldt State Institutional Review Board at: email: [ethan.gahtan@humboldt.edu](mailto:ethan.gahtan@humboldt.edu)  
phone: 707-826-4545

Thank you again for your time and participation!