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Social meaning in semantics and pragmatics

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Abstract

The term *social meaning* identifies the constellation of traits that linguistic forms convey about the social identity of their users—for example, their demographics, personality and ideological orientation. A central topic of research in sociolinguistics and linguistic anthropology, this category of meaning has traditionally escaped the scope of semantics and pragmatics; only in recent years have scholars begun to combine formal, experimental and computational methods to incorporate the investigation of this type of content into the study of meaning in linguistics. This article reviews recent work within this area, focusing on two domain of investigation: endeavors aimed at investigating how semantic and social meanings mutually inform one another; and endeavors directed at capturing both the communication and inference of social meanings with the tools of formal semantics and pragmatics.

1 | INTRODUCTION

Consider the message carried by (1).[1]

(1) I'm goin' fishin'.

While the utterance semantically conveys that the speaker is about to undertake a fishing trip, the alveolar realization of/ing/might be taken to suggest additional information: the speaker is likely from the Southern United States, easy-going and unpretentious, in a relaxed mood, and perhaps more positively oriented towards rural than urban areas. These characterizations are part of the utterance's *social meaning*, the constellation of qualities and properties that linguistic forms convey about the social identity of language users—for example,

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their demographics, personality and ideological orientation (Eckert, 2008; Ochs, 1992; Podesva, 2011; Silverstein, 2003). A central topic of research in sociolinguistics and linguistic anthropology, the investigation of social meanings has by-and-large escaped the scope of subfields of linguistics traditionally dedicated to the study of meaning, such as *semantic*s—concerned with investigating the content conventionally associated with morphemes and sentences—and *pragmatics*— concerned with investigating how this content is modulated by the context and the interlocutors' communicative goals.[2] Only more recently have linguists started to combine insights and methods from across semantics, pragmatics and sociolinguistics to develop a more comprehensive approach to the study of meaning. This article reviews the main lines of work within this area and proceeds as follows: Section 2 presents an overview of the foundational differences between the notion of meaning investigated in semantics/pragmatics and that investigated in sociolinguistics; Section 3 discusses endeavours to investigate how semantic and social meanings mutually inform one another; Section 4 discusses several proposals about how to formalize social meanings with the tools of formal semantics and pragmatics; and Section 5 concludes.

2 | SOCIAL VERSUS SEMANTIC MEANING: A FIRST PASS

Several foundational properties distinguish social meanings from the types of meaning typically investigated in semantics and pragmatics. This section focuses on three areas of differentiation.

2.1 | Indexicality versus convention

To begin with, semantic and social meaning are linked to linguistic forms via fundamentally different mechanisms. As originally argued by de Saussure (1916), the link between semantic meaning and linguistic forms is *arbitrary*—for example, there is no motivated relationship between the string of sounds [f ɪ ʃ ɪ n] and the action of catching fish; and *conventional*—for example, the link between [f ɪ ʃ ɪ n] and its meaning only exists insofar as it is recognized as such by the entire community.

By contrast, conventionality represents only one possible type of connection between social meanings and linguistic form. On the one hand, some linguistic forms directly reference properties that concern speakers' positioning in the social world—for example, honorifics. On the other hand, many social meanings are tied to linguistic expressions via an *indexical* relationship (i.a., Silverstein, 1976, 2003; Ochs, 1992 Eckert, 2008 i.a.)—that is, one that is grounded not in convention, but in a co-occurrence between the sign and the object, such as causality, co-presence, or some other form of spatio-temporal contiguity (Peirce, 1955). Examples of non-linguistic indexes include the indication by smoke that a fire is present or a weathervane pointing to the direction of the wind; in a parallel vein, speech forms can work as indexes by virtue of some form of observable regularity that ties together a particular way of speaking and a particular speaker profile. For example, *-in* indexes the meaning 'Southern'; raised diphthong nuclei index the meaning 'from Martha's Vineyard' in virtue of being a dialectal feature of speakers living on the islands (Labov, 1963). Similarly, language can index aspects of the social relationship between interlocutors: the use of an imperative points to a power asymmetry between discourse participants (Ochs, 1992); the use of the discourse marker *dude* to a relationship of (nonchalant) camaraderie between the speaker and the hearer (Kiesling, 2004).[3]

Indexical associations of this sort represent the starting point of the process whereby many speech forms become socially meaningful. Over time, such links undergo further evaluation in the social space, taking on more specific features that are ideologically related to the original association, but go well beyond it. For instance, *-in* comes to index 'casualness' in virtue of its original association with Southern speakers and the stereotypical evaluation of this group, even when used by a speaker who is not from that area (Campbell-Kibler, 2007, 2011) raised diphthong nuclei index affiliation with Martha's Vineyard local fishing economy and resistance against the mainland-controlled tourist industry (Eckert, 2012; Labov, 1963). It is the accrual of these different layers of social evaluation and re-interpretation—or *orders of indexicality* (Silverstein, 2003)—that leads to the multi-layered constellation of social meanings indexed by linguistic forms, such as those listed for (1) above (for in-depth discussion of the semiotic processes involved in the emergence of social meanings, see Agha, 2003; Irvine & Gal, 2000; Johnstone, 2009; Moore & Podesva, 2009; Ochs, 1992; Silverstein, 2003).

The indexical nature of these social meanings comes with two corollaries. First, they are fluid and perspective-dependent in a way in which semantic meanings are not. Because indexical associations are constantly open to being re-evaluated, and because such re-evaluations are crucially mediated by speakers' ideological views, language users often differ in their interpretation of the social significance of speech forms: the indexical association between *-in* and Southern speakers can be re-interpreted as indexing the speaker as unpretentious, easy-going or insincere and condescending (Campbell-Kibler, 2007). Likewise, forms indexing solidarity can be perceived as either pleasantly familiar and intimate, or disingenuous and unduly informal (Acton & Potts, 2014).[4] In this respect, many social meanings appear to be akin to pragmatic inferences in that they are context-dependent and ultimately contingent on being effectively taken up by the listener (see Section 4 for further discussion).

Second, indexical meanings are structured in a different way from their semantic counterparts. While the latter are normally taken to be organized within a lexicon—a one-to-one mapping between forms and meaning uniformly available to any person that speaks the language—the former typically cluster around *indexical fields*—'constellations of ideologically related meanings, any one of which can be activated in the situated use of the form' (Eckert, 2008, p. 453). Within this perspective, each social meaning can be seen as *potential* content, which can be recruited creatively and recombined by speakers to make social moves and construct identities. Note, however, that some indexical associations, through repeated circulation and use, can acquire a certain stability, becoming agreed upon by (at least) certain segments of a speech community. Examples of this process, typically referred to as *enregisterment* (Agha, 2003), include indeed the link between *-in* and the US South, or between working class speech and 'toughness' (Trudgill, 1972). In this sense, social meanings can also undergo a certain degree of conventionalization. However, contrary to what is the case for semantic meanings, this type of conventionality is not inherent to the form-to-meaning mapping, and only applies to a subset of the observable instances of social meaning.

2.2 | Intentionality versus legibility

A second domain of differentiation revolves around how each type of meaning relates to intentionality. The communication of semantic content crucially presupposes the speaker's intention to do so, as well the listener's recognition of this intention (Grice, 1957). For example, a description like ‘I'm going fishing’ could not possibly be cooperatively uttered without the speaker's full commitment to conveying the content associated with the sentence. Social meanings, by contrast, do not require intentionality. One could deliberately opt to use alveolar nasals to come across as casual and local, just like one could purposefully use *dude* to signal solidarity with the addressee. Yet, many social meanings are conveyed without any specific intention on the part of the speaker for the uptake to happen, from those associated with particular accents, to those associated with the use of morpho-syntactic and lexical elements that are part of the variety of language spoken by a particular group of speakers.[5] Accordingly, it has been suggested that social meanings do not require intentionality, but rather *legibility*—they need to be recognizable by listeners with reference to the broader indexical system within the speech community, regardless of the degree to which the speaker intended for them to be recognized (Eckert, 2019).

2.3 | Minimal units and compositionality

A third axis of comparison revolves around the basic units that carry each type of meaning, and how such units combine to yield larger meaningful constructions. For semantic content, *morphemes* are considered to be the smallest elements of meaning that cannot be further decomposed; these, following the rules of the grammar, compose with one another via the *principle of compositionality* (Frege, 1892), according to which the meaning of a complex unit—for example, a sentence—is a function of the meaning of its part.

By contrast, social meanings are not rooted in one particular layer of the grammar, but can be conveyed by expressions belonging to any category within the linguistic system. Accordingly, it has been theorized in sociolinguistics that social meanings are ultimately carried by *variables:* contrast sets which include alternative realizations of the same underlying form, or, more informally, alternative ways of ‘saying the same thing’ (Labov, 1972, p. 272; see Section 3.1 for more discussion on this definition). It is at this level that most indexical associations originate: distinctions between variants of the same variable—for example, velar versus alveolar realizations of (ING)—are mapped onto distinctions between social categories, and such mappings, in turn, undergo further evaluation in the social space, becoming available for social inferences along the indexical chain discussed in Section 2.1.[6] On this view, the analysis of social meaning is inseparable from the study of variation, even outside of language. Any instance of human behaviour—clothing, activities, habits—can become an index of social qualities, as long as it embedded in a space of variation—that is, as long as it evokes a contrast with a set of alternatives, and the distinctions between such alternatives can be effectively connected with distinctions on a social plane (Eckert, 2008; Gal & Irvine, 2019; Irvine, 2001).

Similarly to morphemes, variables can assemble to form larger interpretable units, normally referred to as *styles*—clusters of linguistic and non-linguistic forms whose combination makes salient a recognizable, distinctive *persona* (Agha, 2005; Coupland, 2007; D'Onofrio 2018; Eckert, 2000, 2008; Gal & Irvine, 2019; Irvine, 2001; Podesva, 2011). For example, Eckert (2000) shows that high school students in a Detroit suburb recruit a variety of signs to index a recognizably anti-institutional, urban-oriented ‘Burnout’ persona, which is crucially defined in opposition to the school-oriented ‘Jock’. These include the use of distinctively urban phonological variants of the late stages of the Northern Cities shift; negative concord; and openly rebellious behaviour such as smoking, or refusing to use the school cafeteria. Yet, socially meaningful variables are not compositional in the same way morphemes are. In particular, they are neither necessary nor sufficient to index a particular style. A speaker could still conceivably index a Burnout persona without smoking or without constantly resorting to negative concord; conversely, a linguistic form alone could be enough to evoke a Burnout persona, especially in a context in which it is particularly noticeable.

2.4 | Interim summary

In light of these differences, it is not surprising that different types of meaning have been investigated separately. Yet, recognizing their different statuses does not mean that these layers of content are in effect disjointed. In fact, a recent body of work has begun to integrate them within the same research program. I now turn to review such endeavours, dividing them into two main categories: work exploring how social and semantic/pragmatic meanings mutually inform one another (Section 3); and work aiming to model and classify social meanings with tools drawn from formal semantics and pragmatics (Section 4).

3 | HOW SEMANTIC AND SOCIAL MEANINGS INFORM ONE ANOTHER

A natural domain to integrate the investigation of semantic and social meaning revolves around the following question: how do these two layers of content interact to determine the overall message communicated by an utterance? I focus on three issues in particular: (i) how semantic properties inform the *nature* (Section 3.1) and (ii) the *salience* (Section 3.2) of the social meaning indexed by a form; and (iii) how conversely the social context shapes the interpretation of meaning at a semantic and pragmatic level (Section 3.3).

3.1 | From semantic properties to social effects

As noted in Section 2.3, linguistic variables have traditionally been seen as sets of semantically equivalent alternatives. Together with the properties discussed in Section 2, this view has implicitly contributed to maintaining the separation between semantic and social approaches to meaning. If social meanings are fundamentally linked to sociolinguistic variation, and if there is no semantic difference between variants, there is also little use for semantic analysis in the enterprise of studying social meaning. Yet, this perspective does not generalize to all domains of socially meaningful variation: once one looks beyond phonological and morpho-syntactic variables, it is indeed possible to find realms of socially meaningful variation in which different variants *do* come with non-trivial differences in their semantic or pragmatic content. This observation comes with two important implications. First, it requires a more liberal definition of sociolinguistic variables—one in which the different variants are better characterized not as being semantically identical, but rather as sharing *a common discourse function* (Dines, 1980) or *functional equivalence* (Lavandera, 1978).[7] Second, it naturally raises the question of how these differences in semantic meaning or pragmatic function shape the sociolinguistic profile of a particular variant, providing a natural departure point for integrating different approaches to the study of meaning. This endeavour is especially relevant with respect to social meanings which bear more on the social relationship between interlocutors than they do on their more permanent identity traits and are thus more directly connected to the semantic and pragmatic effects of the use of particular linguistic expressions. A well-known example is the use of demonstrative pronouns such as *this* and *that*, which convey a social meaning of solidarity between the interlocutors—paraphrasable as 'we are in this together' (Lakoff, 1974; see also, Bowdle & Ward, 1995).

(2) a. *That* left front tire is pretty worn. Lakoff (1974, ex. 45)
b. *Your* left front tire is pretty worn. Lakoff (1974, ex. 45)

Acton and Potts (2014) derive such social effects from demonstratives' presuppositional content, and in particular the presumption that the addressee must be able to access the referent of the embedded noun phrase by considering the speaker's relation to entities in the discourse context. It is this semantic component that explains why demonstratives engender the observed solidarity effects, and why run-of-the-mill determiners like *your* or *the*, which merely presuppose the existence of a unique referent, don't.

By the same token, Acton (2014, 2019) observes that using the determiner *the* with a plural NP (e.g., 'the Americans') tends to depict that referent of the NP as a monolith separate from the speaker, all the while conveying a social meaning of 'self-distancing" from the subject matter that fails to arise with a bare plural alone (e.g., 'Americans'). Once again, he derives this effect from a semantic difference between the two variants: *the*-plurals, but not bare plurals, pick out well-defined collections of object-level individuals as a unit; for this reason, together with the fact that they are more formally complex than bare plurals (see also Section 4.1.1), *the*-plurals foreground the boundary around that collective in a way that bare plurals do not, leading to the observed social effects.

Similar explanations have been advanced to explain the social significance of other semantic variables. Glass (2015) argues that the deontic modal *need to* conveys a component of care or presumptuousness that is instead lacking in *have to*, grounding this asymmetry in the fact that the former additionally encodes in its semantics that the obligation is good for the hearer's well-being. Semantic factors have also been claimed to underlie *politeness inferences* (Brown & Levinson, 1987). For example, Bonnefon and Villejoubert (2006) suggest that the use of probability expressions that convey less than absolute certainty—for example, *possibly, probably*—can be construed by listeners as a polite device meant not to hurt the feelings of the listener in face-threatening contexts (see also Karawani & Waldon, 2017 for a similar take on *might* vs. *may*). Biezma (2009) and Biezma and Rawlins (2017) link the distinctive face-threatening flavour of questions formed using *or not?* or *or what?* (e.g., 'Are you coming *or not/or what*?') to the fact that both expressions logically exhaust the epistemic space of possible answers, and thus 'corner' the listener in providing a reply from addressee. Politeness inferences have been semantically motivated also in association with intonational variables such as rising declaratives —that is, assertions made with interrogative contour as in *John has a sister?* (Levon, 2016; McLemore, 1991; Podesva, 2011). Jeong (2018, 2019) links these effects to the particular type of discourse update contributed by these moves—and specifically the fact that they raise a *metalinguistic issue* about whether such a proposition is a good enough answer to the question under discussion; it is the act of involving the interlocutor in assessing the relevance of their own discourse move that serves as a tool to build rapport with them, and hence as a strategy to enhance politeness in most contexts (see also Levon, 2016). Finally, Hilton (2018) suggests that politeness inferences also arise in connection to the broader pragmatic relations between speaking turns in a conversation; for instance, speakers who abruptly change the topic are perceived to be interrupting—and socially evaluated accordingly—even if they did not overlap with their interlocutor.

Looking ahead, an open question revolves around whether semantic and pragmatic factors can explain not only the emergence of interaction-based social meanings such as solidarity or politeness but also of more durable identity traits or personae (see Section 2). A promising testing ground for this comes from variation in pragmatic (im)precision: Beltrama (2018) shows that highly precise speakers—for example, those saying The car is going '69 MPH'—are associated with a constellation of positive ('articulate', 'educated') and less positive ('annoying', 'pedantic') social qualities in comparison to more approximate ones—those saying 'the car is going 70 MPH'. As a possible explanation, Beltrama suggests that a high level of descriptive detail is *iconically* re-analysed by listeners as being naturally connected to detail-orientedness as a central component of the speaker's identity, following an indexical chain similar to the one suggested for the social meaning of hyper-articulation (i.a. Bucholtz, 2001; Eckert, 2008; Podesva, Reynolds, Callier, & Baptiste, 2015). Much remains to be learned, however, on the precise mechanisms whereby inferences linking pragmatic reasoning and identity categorization are drawn in conversation (see also Hunt & Acton, 2020 on listeners' evaluations of *the* vs. *your*).

3.2 | From semantic properties to social salience

A related question concerns how semantic and pragmatic factors contribute to determining a form's social *salience*—that is, its 'propensity to be associated with indexical meaning by listeners in a given context' (Levon & Buchstaller, 2015, p. 322). This question can be framed in a larger line of work in sociolinguistic research that shows that, for a given variable, variants with salient social meanings tend to be linguistically *marked*—that is, they tend to occur in contexts that 'depart more strongly or unexpectedly from a listener's customary experience' (Campbell-Kibler, 2005, p. 27) and are thus more apt to be noticed by listeners and assigned social meaning. This idea is supported by work showing that forms occurring in less frequent, and therefore more marked, contexts are more salient carriers of social meaning than their more frequent, unmarked counterparts across different phonological and morpho-syntactic variables, including zero-copula constructions (Bender, 2000), rising declaratives (Podesva, 2011) and creaky voice (Callier, 2013).

While this research has proceeded independently from semantics and pragmatics, factors linked to meaning composition and interpretation become central to the enterprise of studying social meaning salience, to the extent that they can also determine linguistic markedness. One relevant example is the use of intensifiers such as *totally* and the Italian suffix -*issimo*, which are shown to index qualities such as 'friendly', 'outgoing', as well as 'inarticulate' and not 'intelligent' (Beltrama, 2016; Beltrama & Casasanto 2017, in press). Qualities of this sort do not seem to be amenable to being straightforwardly grounded in the semantics of the form (but see Beltrama & Casasanto 2017 for some suggestions), yet their social salience is sensitive to the type of scale targeted by the modifier, a parameter of semantic variation that crucially tracks a markedness asymmetry. Specifically, *totally* in English and -*issimo* in Italian are perceived as stronger indexes in compositionally marked contexts—that is, when the target scale is *not* encoded by the adjacent expression, but needs to be supplied from the context or the speaker's epistemic attitude (in (3)). Such indexical associations are instead either weaker (in the case of *-issimo*) or absent (in the case of *totally*) in unmarked uses, when the scale is compositionally supplied by a gradable predicate (as in (4)).

(3)	Mary is *totally* coming to the dinner.	Marked
(4)	The bus is *totally* full.	Unmarked

Markedness is also central to shaping the social salience of forms whose social meaning is already grounded in the semantics (as in Section 3.1). For example, Acton and Potts (2014) show that the solidarity effects of demonstratives are especially noticeable in situations in which these expressions are unnecessary for referential purposes, and thus more likely to violate conversational expectations. This is especially clear when they are used before proper nouns, a context in which the referent is already uniquely identified.

(5) *That* Henry Kissinger sure knows his way around Hollywood.

Acton (2019) argues that a similar type of markedness is crucial to highlight the monolithizing effect of definite determiners with plural NPs. Because in the case of plural NPs the same content could have been conveyed with a simpler bare plural (e.g., 'Americans'), the determiner calls the listener's attention to the fact that a more complex construction than the default is being used, contributing to a boost of the social effects engendered by the semantics of the form. The correlation between markedness and social meaning is nevertheless challenged by forms that, despite qualifying as marked from a semantic or pragmatic perspective, do not seem to have particular social significance – for example, aspectual coercion (e.g., 'I began a book' vs.'I began to read the book') or verbose event descriptions (e.g., 'I got the car to start" vs. 'I started the car'). These cases can be reconciled with the generalization above under a view in which the emergence of social meaning remains largely determined by factors external to the linguistic system—for example, ideology, socio-economic transformations and so on. In this respect, markedness might strengthen the association between a linguistic form and social meanings but is not sufficient to make a form socially meaningful per se.

3.3 | From the social context to semantic interpretation

The converse perspective on the issue addressed in this section revolves around the following question: how do social meanings, and the social context more generally, inform the interpretation and composition of semantic meaning? In a foundational endeavour to address this question, McConnell-Ginet (McConnell-Ginet, 2002, 2003, 2020) argues that semantic meaning is crucially determined by the *practices* of a community—that is, the beliefs, values and power relations that bring its members together (see also Eckert, 2000 and Eckert & McConnell-Ginet, 1992 on the notion of *communities of practice*). This is especially clear when one considers terms whose applicability conditions have shifted over time in response to socio-ideological changes, often times with legal consequences—for example, *rape*, whose original meaning of 'stealing someone else's property' only maintains a metaphorical relation to its current meaning.[8] Identity considerations can also impact the interpretation of seemingly functional, neutral words, such as universal quantifiers. For example, McConnell-Ginet (2020) argues that the sentence 'We had the restaurant to ourselves—no one else was there' would typically exclude from the quantificational domain personnel working at the restaurant, following the social practice according to which staff members are not taken to be part of a party. McConnell-Ginet claims that the very social assumptions determining the quantifier's domain are reinforced whenever a quantifier is used in this way—excluding servers effectively reflects and sustains their social subordination, even though there is often no explicit intention of language users to do so. Precisely the discriminatory power linked to the semantic content of certain expressions has motivated recent ideological interventions aimed at neutralizing such asymmetries from above. A relevant example is the endeavour to discourage the use of masculine forms as the unmarked expression for referents with non-male gender, replacing them with forms that do not perpetuate this asymmetry. These initiatives crucially provide an opportunity for linguists to explore how the social context can affect the semantic properties of linguistic forms, and how these semantic transformations are shaped by the socio-ideological frame in which they take place. Especially fruitful testbeds for this question are the emerging use of singular *they* in English (see i.a., McCready, 2019), or feminine forms for professional nouns in languages with grammatical gender (see Burnett & Bonami, 2019 on French).

Looking ahead, two important issues emerge. One concerns how identity considerations affect not just the referential but also the epistemic dimensions of meaning—for example, the degree of confidence or authority ascribed to speakers in a particular context. This question has already garnered considerable attention in research on *testimonial injustice* in philosophy, both in connection to instances of *credibility deficit*—the act of failing to treat someone seriously as a source of knowledge on the basis of social prejudices (Ficker, 2007)—and *credibility excess*—the act of ascribing inflated expertise, again based on identity-based stereotypes (Davis, 2016). Similar issues have been at the centre of recent work on the semantics and pragmatics of slurs and pejoratives (McCready, 2019; McCready & Davis, 2017), highlighting the importance of incorporating the study of social context when modelling notions such as epistemic authority and trustworthiness in theories of meaning. The second issue revolves around how social factors impact the cognitive mechanisms that underlie meaning interpretation. Such a question has become especially relevant, as a variety of studies have recently illuminated the central role of social information in different areas of language processing (Casasanto, 2008; D'Onofrio, 2015; Hay, 2009; Squires, 2013). For example, in recent work, Fairchild and Papafragou (2018) and Fairchild, Mathis, and Papafragou (2020) show that listeners are more ready to take linguistic descriptions as under-informative and to adjust their behaviour accordingly, when uttered by native speakers than when uttered by non-native ones. In a similar vein, information about the social persona of the speaker has been suggested to affect other processes of meaning interpretation, such as the resolution of imprecise statements (Beltrama & Schwarz, 2020) and the retrieval of implicit content in *dogwhistles,* instances of political speech designed to convey a secondary, controversial message understood only by particular listeners (Henderson & McCready, 2018; Lake, 2018, 2020). These findings highlight the link between social information and meaning resolution as an emerging, widely uncharted frontier in the study of pragmatic processing.

4 | MODELING SOCIAL MEANINGS

Regardless of their grounding, social meanings are crucially part of the content conveyed by language. This has motivated recent endeavours to classify and formalize the information they carry with the tools normally used to model meanings in semantics and pragmatics. These proposals can be divided into two classes: those modelling social meanings as a kind of pragmatic inference (Section 4.1); and those modelling social meanings as (a special kind of) conventional content (in Section 4.2).

4.1 | Social meanings as pragmatic inferences

One family of accounts models social meanings as inferences calculated via reasoning about the speaker's intentions, the listener's expectations, and general principles of communication. These proposals can be further divided into approaches that derive social meanings as inferences drawn from a set of communicative maxims (Section 4.1.1) or instead from probabilistic reasoning about the interlocutors' expected utility and preferences in the context (Section 4.1.2).

4.1.1 | Implicature-based approaches

The enterprise of modelling non-literal meaning has been deeply shaped by Grice's (1975) foundational theory of communication, which includes three central elements: the assumption that interlocutors abide to the *Cooperative Principle*, further articulated in the quality, quantity, relation and manner maxims; the notion of *alternative-based* reasoning—that is, that inferences are drawn by reasoning not only about what the speaker said, but also about what they *could have said* and didn't; and the idea that inferences are drawn on a contextual basis—the same expressions can trigger them in certain contexts and fail to do so in others.

Politeness inferences such as those discussed in Section 3.1 have often been claimed to feature these properties. For example, Bonnefon and Villejoubert (2006) argue that the face-saving flavour of modal expressions such as *possible* is crucially arrived at pragmatically, taking into account both the form's conventional content and the utterance context. Evidence for this is that the process whereby politeness is inferred also carries important consequences for other aspects of the semantic interpretation of the expression; for example, it inhibits the scalar implicatures that the use of such expressions would normally license (see Bonnefon, Feeney, & Villejoubert, 2009; Mazzarella, Trouche, Mercier, & Noveck, 2018 for further discussion). In a similar vein, Jeong (2019) suggests that the politeness effects linked to rising declaratives can be derived via the same primitive communicative principles that inform other kinds of non-truth-conditional inferences. Specifically, it is crucial that the speaker uses these moves to genuinely raise an issue about the relevance of the proposition (see Section 3). The same effects instead fail to emerge when the speaker makes this move to imply that the proposition should already be in the common ground, and thus manifests disapproval towards the interlocutor's conversational behaviour.

Acton (2014) undertakes an endeavour to generalize the inference of many social and pragmatic meanings by developing a framework in which many instances of both of these types of content are derived from a set of core principles.[9]

(6) Acton's Principles:

a. **Content as both associations and entailments**: An utterance's content includes both entailments and non-entailed, indexical content;

b. **Full significance**: The significance of an utterance depends upon context and upon what distinguishes the utterance from functionally related alternative utterances;

c. **Differential importance of different alternatives**: The importance of a given alternative in determining the significance of an utterance is a function of its relatedness to the actual utterance and of how well it accords with conversational expectations;

d. **Violated expectations**: An utterance is particularly likely to have special significance where it violates conversational expectations.

Acton argues that these principles fundamentally interact with the semantic content of demonstratives and the definite article to derive their social meaning (see Section 3.1). For example, the self-distancing effects indexed by *the* fully emerge only by considering the alternatives that the speaker could have used in the context. Because the same content could have been conveyed with a simpler form (e.g., 'Americans'), the presence of the determiner contravenes conversational expectations (here, manner), highlighting the distancing effect as a way of reconciling this seeming pragmatic violation with our normal assumptions about cooperative communication. On this view, social meanings can be derived through a similar inferential chain to the one associated with Horn (1984)'s *division of pragmatic labor*—the principle according to which, between two alternatives with the same truth-conditional content, the one that violates conversational expectations (e.g., by virtue of being more complex) tends to be ascribed special significance.

Finally, Burnett and McCready (in press) put forward the notion of *social implicature* to identify those inferences triggered by the elements in an utterance that have social meaning; the authors suggest that this category captures a variety of grammatically diverse social meanings, including those conveyed by phonological variables and gender pronouns. However, the authors do not provide an explicit outline of the calculation whereby such inferences are arrived at, leaving the question open as to whether these are effectively driven via a core set of principles similar to Grice's and Acton's, or are instead computed differently.

4.1.2 | Probabilistic approaches

An alternative pragmatic approach to modelling social meanings is provided by Burnett's *social meaning games (SMGs)* framework (Burnett, 2017, 2019), which builds on recent advances in game-theoretic pragmatics—and in particular, on Rational Speech Act (RSA) models of meaning interpretation (see Goodman & Frank, 2016 for an overview).[10] This framework models conversation as a game in which interlocutors are utility-maximizing agents, and payoffs are calculated based on coordination. On this view, social meanings are seen as part and parcel of the message conveyed by an utterance and are thus crucially involved in the coordination game. According to the model, speakers choose the form that (they think) will be the most successful to construct their desired persona; more technically, they aim to maximize the *utility* of the message, which is measured as the *informativity* of the message (given the desired persona), minus whatever costs associated with it. The corresponding utility function for the speaker (U_S) is reported below, where the informativity of a message m for a persona π is measured as the natural logarithm (ln) of the prior probability of π conditioned on the meaning of m, following the standard approach in RSA approaches.

$$(7) \quad U_S(\pi, m) = \ln(\Pr(\pi \mid m)) - C(m)$$

Burnett (2019) illustrates how this dynamic applies to the construction of social meaning by drawing on data from a study on Barack Obama's use of *-ing* versus *-in* (Labov, 2012), in which the rate of alveolar variants is shown to be highest during a grilling session on the White House lawn, intermediate during a Q&A session with journalists, and lowest in a scripted acceptance speech at the Democratic National Convention. Burnett argues that this basic system can be extended to capture the construction of social identity in a variety of domains described in the previous literature. These include other cases of socially meaningful variation linked to (ING) as related to social class (Labov, 1966) and gender identity (Gratton, 2016), as well as to (T/D) release in politicians' speech (Podesva et al., 2015).[11] Along these lines, other authors recently proposed to extend this framework to capture other socially meaningful phenomena, including child language (Cohn-Gordon & Qing, 2018), dog whistles (Henderson & McCready, 2018) and code-switching (German, 2018). What changes from case to case is the set of available social qualities that can be conveyed by the variants at stake, and the relative priors that speakers and listeners have about their use.

4.2 | Social meaning as conventional content

On a different approach, social meanings have been treated as a variety of non-at-issue conventional content, and are thus seen as more akin to presuppositions and conventional implicatures than to pragmatic inferences. These proposals are motivated by the observation that social meanings effectively pattern with the former when embedded in the diagnostics typically used to categorize semantic content. In particular, Smith, Hall, and Munson (2010) show that listeners find it natural to challenge the use of monophthongs (e.g., [a:]) as an index of Southerness with phrases typically used to object to non-at-issue content, such as versions of the *wait a minute* test in (10-a) (see von Fintel, 2004). They find it however considerably less natural to do so with phrases used to challenge at-issue content (in (8-b)).

(8) Oh, is [pa:] their specialty?
  a. Wait a sec—are you from the South?
  b. # No, you're not from the South.

Focusing on the form of the monophthong, Taniguchi (2019) outlines an account of its social meaning as an instance of context change potential, a proposal originally introduced by Heim (1983) in order to capture the meaning of presuppositions. In Heim's account, a sentence such as ‘John stopped smoking’ is only defined and felicitous in a context that entails that John used to smoke; in a similar vein, Taniguchi suggests that the use of the monophthong updates the context with the requirement that the speaker must be a Southerner. Two properties in particular are shared across presuppositions and such indexical associations. First, they can be accommodated by the listener upon its first occurrence in discourse: the listener will update the context input without the need for the speaker to explicitly establish their regional identity or that they used to smoke. Second, they can be reiterated upon each use of the expression with no effect of redundancy: the condition that the speaker is Southern is stated every time a monophthong occurs, just like the condition that they used to smoke is upon the use of ‘stopped smoking’.

McCready and Davis (2017) and McCready (2019) suggest that other social meanings can be captured in a similar spirit. In particular, they identify forms such as honorifics and slurs as serving the purpose of referencing, modifying and making salient the social networks that linguistic agents exist in as social beings. They claim that this function is also achieved by virtue of a conventional association between these forms and social effects: specifically, these expressions are claimed to *invoke* sets of historical facts or attitudes about the interlocutors or the groups they belong to, via a similar mechanism to the one whereby *expressives* such as *damn* convey emotive content (McCready, 2010; Potts, 2007).

4.3 | Modelling social meanings: looking ahead

These proposals represent important steps forward towards the modelling of social meanings with the tools of formal semantics and pragmatics. At the same time however, they raise a number of questions, all of which are likely to play a central role in further developing this enterprise.

The first issue concerns the role of intentionality and cooperativeness in the communication of social meaning. Pragmatic accounts lean on the assumption that social meanings are communicated as the result of goal-oriented behaviour—one that both presupposes the speaker's deliberate intention to communicate these meanings and assumes cooperativeness on the part of all the participants to the exchange.[12] While this approach seems to be appropriate to capture phenomena such as solidarity or politeness inferences, it is less clear how it could be extended to indexical associations such as those related to regional identity or accents. To the extent that ways of speaking are clustered along particular traits of social identity, the communication of these meanings appears to be unavoidable in such cases (for further discussion of cases in which the communication of social meanings does not require intentionality or cooperativeness, see Acton, in press; Campbell-Kibler, 2008, 2009; McConnell-Ginet, 2020). A further challenge for implicature-based accounts revolves around the broader cultural context in which the Gricean project is inscribed: albeit meant to be highly general, the maxims and the cooperative principle are couched in a Western, chiefly Anglo-American setting. As such, their generalization to other cultural contexts and communities remains problematic (see Ochs, 1976 for discussion), and requires a more careful consideration of the local cultural norms in which linguistic communication is embedded, as well as how interlocutors conceptualize and rationalize such norms (see in particular the notion of *metapragmatics,* Silverstein, 1993, pp. 33–58; and *language ideology,* Irvine & Gal, 2000; Woolard & Schieffelin, 1994). In this regard, accounts treating social meanings as bits of conventional content are less directly exposed to these issues; at the same time, they remain crucially less amenable to capturing the fluid, highly context-dependent nature of social meanings, as well as the possibility for speakers to build on conventionalized indexical associations to convey further social meanings on the spot.

The second issue concerns how analytical distinctions typically used in semantics and pragmatics can be extended to shed light on relevant distinctions in the domain of social meanings, with two considerations emerging as especially central. One concerns the *enregisterment* process through which some indexical associations undergo a certain degree of crystallization within a community. In this respect, highly enregistered social meanings could be seen as being somewhat parallel to semantic content, and less enregistered ones more akin to context-based inferences. Note, however, that the distinction between enregistered and non-enregistered social meanings is typically understood in sociolinguistics and anthropology as a gradient cline between two phases of the same process, as opposed to a categorical difference between qualitatively separate kinds of content (Agha, 2005). The other concerns the distinction between social meanings grounded in the social relationship between the interlocutors emergent in discourse (e.g., solidarity, politeness) and social meanings that bear on the more durable traits of a speaker identity or personality (e.g., Southern, Burnout, articulate). As the former are crucially tied to the here-and-now of the conversation, it is not surprising that they appear to be shaped by the pragmatic properties of linguistic forms in a more direct way than the latter, as shown by the case studies discussed in Section 3.1. This, in turn, suggests that, in virtue of simultaneously bearing on the conventional meanings of linguistic expressions *and* on the interpersonal relationship between interlocutors, pragmatic meanings emerge as a prominent domain in which the connection between semantic and social meanings can be appreciated and investigated.

5 | CONCLUSION

I have provided an overview of different lines of work aiming to incorporate the study of social meanings in semantics and pragmatics, and the study of semantic and pragmatic meaning in sociolinguistics. These endeavours provide encouraging evidence that the study of meaning would greatly benefit from combining insights and methods across different linguistic disciplines. Looking ahead, the challenge will be to expand this area of research without unduly simplifying the distinctive properties of each type of content. An approach along these lines would remain mindful of how semantic, pragmatic and social meanings differ with respect to issues such as conventionality, compositionality and intentionality (see also Eckert, 2019), while continuing to unveil how these domains of meaning come in contact and inform each other in communication.

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ENDNOTES

[1] This example is also used in Acton (2020), ex (8).

[2] It must be noted that a rich line of work in linguistic anthropology has striven to bring together different domains of meaning, though from a perspective on language that substantially differs from the one that traditionally informs linguistic semantics and pragmatics, and thus falls outside the scope of this article. See, among others, Silverstein (1976), Errington (1985), Agha (1994), Duranti (1997) and Kockelman (2012).

[3] The social indexing of interpersonal relationships is also referred to as *stancetaking* in the sociolinguistic literature (DuBois, 2009; Kiesling, 2016; Moore & Podesva, 2009; Ochs, 1992).

[4] Semantic meanings—for example, *fun, tasty*—can also be perspective-dependent (Kölbel, 2004; Lasersohn, 2005; McNally & Stojanovic, 2017; Stephenson, 2007). Yet, these are typically treated as special cases, and as such distinguished from perspective-invariant types of semantic meaning.

[5] From this perspective, social meaning bears an intuitive connection to Grice's category of *natural* meaning (Grice, 1957), which indeed indicates a causally motivated, indexical relation between a sign and an object (e.g., 'spots' mean 'measles'), and which is contrasted by the author to the category of *non-natural* meaning.

[6] Some authors suggest that social meanings associate with individual *variants*, rather than *variables*. See Campbell-Kibler (2011) and Dinkin (2016) for discussion.

[7] For discussion on how differences in pragmatic function between variants should be incorporated in defining the notion of pragmatic variable, see also Terkourafi (2011), Cameron and Schwenter (2013), Wagner, Hesson, Bybel, and Little (2015) and Wiltchsko et al. (2018).

[8] For similar cases discussed from the perspective of cognitive linguistics, see also Gallie (1955) and Lakoff (1987) on *contested concepts*.

[9] The principles in (6) have been updated in subsequent work by the author—see for example, Acton (2019, ex. 22).

[10] See Kleinschmidt, Weatherholtz, and Jaeger (2018) for a different probabilistic implementation of social meanings, though one that does not build on a pragmatic model, and is therefore outside the scope of this article.

[11] An important assumption of the SMG model is that speakers are *approximately rational*: while they are indeed trying to maximize their utility, they do not always pick the optimal option. This explains why the observed differences in speaker behavior are gradient, rather than categorical.

[12] Note that assuming intentionality does not imply that interlocutors have full awareness or consciousness of the processes whereby social meanings are communicated. See Burnett (2019) for further discussion of this point.

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