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ABSTRACT

A field study conducted in Israel sought to identify emblematic gestures (body movements that convey specific messages) that are recognized and used by Hebrew speakers. Twenty-six gestures commonly used in classroom interaction were selected for testing, using Schneller's form, "Investigations of Interpersonal Communication in Israel." The 26 gestures were decoded by 200 college students (Group I). Selected gestures were also decoded by 75 subjects (Group II), including college students and members of YMCA classes for pensioners. Participants noted their recognition and interpretations of the investigator's encoding intentions, their certainty of interpretation, and where they learned each gesture. Results of the study showed: (1) that eight gestures were identifiable as emblems, and three more were identifiable as possible emblems; (2) that there were slightly negative although insignificant correlations found between increased age, years spent in Israel, expressed certainty of interpretation, and accuracy of interpretation; and (3) that natives and subjects from 20 to 24 years of age tended to have the highest rates of expressed certainty of interpretation as well as accuracy of interpretation. Although the study used a less than representative sample, and lacked a unified gesture labelling system, the study yielded useful information about non-verbal communication systems in Israel, and suggested that comparison with similar studies could produce a comprehensive picture of emblematic gestures used in various cultures. (Twenty references and six tables are provided, including two extensive tables that illustrate the gestures featured in the study.) (JC)

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EMBLEMATIC GESTURES AMONG HEBREW SPEAKERS IN ISRAEL

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ABSTRACT

A field study was conducted in Israel to identify emblematic gestures recognized and used by Hebrew speakers. Studies which have identified the emblematic gestures of particular ethnic or national groups are reviewed and criticized. This study seeks to contribute increased rigor and systematicity to the identification of particular groups' emblematic gestures.

Twenty-six gestures commonly used in classroom interaction were selected for testing. The instrument used was Schneller's form, "Investigations of Interpersonal Communication in Israel." Subjects included college students, members of YMCA classes for pensioners, and others. On the instrument, subjects noted their recognition and interpretations of the investigator's encoding intentions, their certainty or interpretation and where they learned each gesture.

Whereas previous studies of this nature accepted around 70 percent interpretive agreement among subjects, this study indicates that at least 90 percent is a more reliable measure by which to label gestures "emblems." In addition, correlations were tabulated for the effects of subjects' age, ethnicity, years in Israel, certainty about interpretation, and accuracy of interpretation.

The findings of this study were: (1) eight gestures were identified as emblems, and three more gestures identified as possible emblems, (2) slightly negative although insignificant correlations were found between increased age, years in Israel, expressed certainty of interpretation and accuracy of interpretation, (3) natives and subjects from 20-24 years of age tended to have the highest rates of expressed certainty of interpretation as well as accuracy of interpretation.

The findings are compared with those of three other studies of Jews' gesturing and differences between the studies are considered. Recommendations include continuing such studies and comparing the results of related projects in order to form a comprehensive picture of particular groups of people.

Limitations are discussed. These include: (1) a less than representative sample, (2) lack of a consistent conversational context, (3) potential for distortion in the decoding process, (4) the lack of a unified gesture labelling system, and (5) the possibility of cultural or researcher bias.

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INTRODUCTION

Systems of human nonverbal communication warrant increased attention by researchers and educators. Whether nonverbal behaviors (NVBs) are innate or learned from one's society, this form of communication is internalized by all people in accordance with the norms of the society in which they are raised.

Furthermore, NVBs seem to be interpreted immediately upon perception, at subliminal levels. Interlocutors' NVBs seem less subject to intellectualizing about motives than verbal behaviors. However, observers' attribution of motives in accordance with their own social norms may be incorrect from the viewpoint of the performer. Mistaken attribution has been the "stuff" from which misunderstanding and hurtful stereotypes develop. Examination of the bases for such stereotypes could help enable the peoples of the world to communicate more successfully and potentially decrease misunderstanding.

One aspect of stereotypical behavior that has seen some systematic investigation is emblematic gesturing. Efron's 1941 landmark study discusses Jewish and Italian gesturing. Efron's conclusions about the restricted use of gesturing by Jews inspired Broide's 1977 thesis project, a search for emblematic gestures among Israeli Jews.

Broide feels that she verified 118 emblems, a fairly extensive system of gestures. Interestingly, the nature of the emblems she identified are in line with Efron's conclusions. The results of this study further support the notion of development and continuation of a gestural system among Jews of Eastern European ancestry ("Ashkenazi").

The evolution of that gestural system among Israeli Jews of many national and ethnic backgrounds is being further investigated in Israel today by Schneller. After testing supposed emblems with hundreds of subjects, he feels there is no clear set of gestural emblems across Israeli society.

This research project constitutes a continuation of Broide's and Schneller's work, albeit with a different approach. Broide tested 453 verbal messages with fewer than 100 subjects, all of Eastern European ancestry. Schneller's "Schneller Israel Emblem Test" (SIET) tested only nine supposed emblems (including gestural variations of two of the messages) with 400 subjects of varied backgrounds. Other tests using his form, "Investigations of Interpersonal Communication in Israel" (IICI), the instrument of the immediate study, seek to identify the nonverbal messages of Ethiopian Jews that contrast with those of other Jews. The

present study tested 26 gestures common to classroom interaction situations with 275 informants, the majority of whom were of Middle Eastern and North African ancestry ("Sephardi")(see Table 1). While Broide considered 70 percent informant agreement sufficient to consider emblems "verified," Schneller considered 66 percent adequate.

The results of this study suggest that these percentages are far too low. Specifically, this study suggests that 90 percent is a more realistic consensus for verifying "emblems," and that lesser amounts of consensus allow for ambiguity capable of altering the nature of a nonverbal message and causing miscommunication.

However, the findings of this and the other similar studies should be considered tentative because data is still scarce. The best hope for developing a gestalt of any people's gestural system is continuation of such studies and comparison of their results.

Ultimately verification could come through combining findings of the various related studies. However, the goal of all such research should not just be the identification of gesture usage. The desired direction is an analysis of how such findings can be used to enhance educational and social planning and improve interpersonal relations.

EMBLEMATIC GESTURES

Specifically, the gestures called "emblems" are the focus of this paper. The term "gestures" will refer to bodily movements (here primarily manual) without a particular meaning attached to any motion. "Emblems" will refer to gestures that convey specific messages, whose meanings are clear and unambiguous to the people who hold these acts in common even when they are performed out of the context of conversation, and that are translatable into a word or phrase.

Eisenberg and Smith criticize the term "emblems" as a systematic definition. Even universally common body movements convey various meanings to different groups of people. Furthermore, cultural and language groups can refer to communities as broad as the entire United States or to small social, economic, racial or religious associations of people.

Despite the comprehensive definitions of "emblems" by Efron, Ekman and Friesen, no scholar seems to have established how much agreement among users of any "emblems" qualifies those gestures as such. Few studies have sought to identify the gestural emblems of any ethnic or national group, and none of those seems to have asked the crucial question: Within any language or cultural group, what percentage of the members needs to agree on a specific meaning for a particular gesture in order for that gesture to qualify as an "emblem?"

Efron raised the issue of how hazardous it is to ascribe racial, psychological, or behavioral traits to large groups of people. Yet throughout his 1941 study, there seems an assumption of what movements

are emblematic. Efron focuses on the nature of the movements and the types of information they convey without clarifying what percentage of his subjects used the same gestures for particular meanings.

Most subsequent gesture studies also imply ethnic or national usage consensus without justifying that conclusion or indicating the degree of agreement. Birdwhistell is unclear about his justification for considering certain movements "American." Morris, et al. offer usage frequencies, but their concern is to identify usage variations as much as consensus. Ekman and Friesen decided that 70 percent agreement is adequate without explaining why. Other studies seem to have simply followed this pattern. Schneller even considered 66 percent agreement adequate for his study, "Empathy." Again, there was no justification for this percentage.

It is proposed in this research, that even 70 percent is too low an agreement level for the purpose of labelling a gesture "emblem." As can be seen in Table 2, there can be too much variability within the remaining 30 percent of interpretations for anyone to claim that the gesture is unambiguous. The breadth of ambiguity of seemingly emblematic gestures can be seen even more clearly by an examination of the frequencies offered by Morris, et al. for their "key symbolic" gestures.

Given the limitations of these previous studies and the clear possibility of ambiguity unless agreement is high, in this study, a gesture will be considered an emblem if it showed at least 90 percent meaning agreement. Gestures with at least 80 percent agreement can be considered tentative emblems.

EMBLEM UNIVERSALS

It has been suggested that a gesture which is a universal emblem is, in effect, an emblem for no one. While that argument has some validity, there has not been enough systematic research regarding universal consensus about gestural emblems to state conclusively which gestures are indeed universally recognized for a particular meaning. However, for successful interpersonal communication it is important to know exactly where and how particular gestures function, and whether "universals" are literally universal.

For instance, Schneller found that Ethiopian Jews share some gestures with Israeli Jews. Gesture 16 (Table 1) often indicates regret or embarrassment for both groups. However, while both groups employ gestures 20 and 26, their meanings differ between the two groups: for Ethiopian Jews, gesture 20 indicates begging rather than "slowly" and gesture 26 is for salutation rather than an admonition to "stop." To further complicate matters, during this study, an Ethiopian informant pointed out that the several groups of Ethiopian Jews are not entirely unified in their agreement of gestures and their meanings.

This field study consisted of a primary test and a confirmation test. The seven apparent emblems listed below were among the gestures omitted from the second test on the basis of previous research and publication of

their "universally" recognized meanings, and because in the primary survey, they had been recognized by over 75 percent of the informants in the survey (70% being the traditionally accepted degree of consensus among emblem researchers). The informants' awareness of the alternative interpretations of these supposed emblems, and the clear ambiguity evidenced for "universal emblems," gestures 13 and 14, led to the belief that 70% is too low a level for implied agreement and raises questions about gauging "universality."

Table 2 lists the percentages of agreement among informants regarding gesture meanings. Despite high levels of agreement regarding gestures 2, 6, 9 and 10, for example, note the variety of interpretation of the following gestures.

Gesture No. 2:

Meaning: "Yes"
Gesture: Up-down head nod

Morris calls the vertical head nod an incipient bowing action. Bowing is a universal gesture of submission. Likewise its derivative, the assenting nod, can be interpreted as submission to the speaker's ideas (*Manwatching* 68; Eibl-Eibesfeldt 304. Morris claims that the nod always means "yes," though other investigations of his as well as of others have shown that at least Bulgarians, Greeks and Arabs indicate "no" with a variant of the nod (*Manwatching* 68; Kirch 417; Jakobson 91-95). The subtle movement differences can easily be misread. That potential ambiguity points to the need for emblem measurement and clear description of movements.

Gesture No. 6:

Meaning: "No"
Gesture: Side-side head

According to Darwin, head turning for "no" may derive from an instinctive gesture of refusal, e.g., of the mother's breast, common to primates. The gesture seems universally recognized even where other gestures are used more commonly to indicate a negative answer (Morris, *Manwatching* 68-69; Eibl-Eibesfeldt 304).

Jakobson rejects the notion of emblem universality because what seems to be worldwide consensus often proves not to be (Jakobson 91-96). However, his review of "yes" and "no" gesturing among world societies seems to vitiate his rejection because, like other investigators, Jakobson concludes that the emblems numbered 1 and 6 above enjoy extremely widespread consensus of meaning and movement. Furthermore, as noted by Morris below, increasing intercultural contacts expands the

recognition of different cultures' nonverbal signs which can lead to a seemingly universal consensus.

Gesture No. 9:

Meaning: "I don't know"
Gesture: Shoulder shrug

Essentially a universal gesture of uncertainty, different cultures accentuate the attitude of puzzlement with different varieties of face and hand movement (Morris, *Manwatching* 46).

Gesture No. 10"

Meaning: "OK"
Gesture: Thumb-index circle

While the gesture itself is universal, its meaning can vary from a symbol for perfection (United States of America), to one for money (Japan), to worthlessness (France), to homosexuality (Malta), an obscenity (Spanish societies) or a sexual proposition (Greece) (Morris, *Manwatching* 40; Morris, et al, Chapter 9). However, its American meanings, "precisely" and "OK" have spread around the world. The gesture seems to be recognized as "OK" whenever the gesturer smiles. But if no smile accompanies the gesture, other meanings prevail outside of England or the United States; in these two countries, the meaning "OK" predominates (Morris, *Manwatching* 40; Morris, et al. Chapter 9). As noted in the previous section, in this study, the informants recognized the encoding as "OK" when accompanied by a smile, but were confused when it was not.

Gesture No. 11:

Meaning: "OK"
Gesture: Thumb protrudes upward from fist usually held about face level

This gesture seems to represent a misinterpretation of the ancient Roman sign to spare a gladiator; the thumb was compressed in the fist as opposed to pointing it down toward a gladiator whom the audience wanted slain. When Morris first surveyed Italians, however, only 23 percent reported using it, but many recognized the gesture as the "English OK" often seen in films and on television (*Manwatching* 66). In a later book, *Gestures*, Morris indicates that this gesture is used as well as recognized all over Europe (195). Nonverbal language is apparently subject to the same diachronic processes that lead to change in verbal language.

Gesture No. 13:

Meaning: "Stop"
Gesture: One or two hands held upright at chest or face level, palms facing interlocutors.

This shielding movement is reportedly used even among the blind (Morris, *Manwatching* 59). However, in this study only about 75 percent of the informants clearly recognized the encoding as "stop."

Gesture No. 14:

Meaning: "Give"
Gesture: Hand extended with palm upturned and open

The extended upturned palm implies begging in virtually all societies (Morris, *Manwatching* 59). Pines reports the gesture is typically used by small children to pacify others (63). In this study, the gesture was recognized as a request by 91 percent of the informants.

Another universal behavior seems to be the smile. During a pilot study in the United States, one team member questioned the possibly cultural implications of our subjects smiling preparatory to telling a joke. Subsequent informal observation in Israel did not indicate particular cultural links with this behavior.

Rather, smiling in advance of other nonverbal or verbal behavior seems universally human. Pines and Morris are among the researchers who report the use of smiling as an appeasement gesture even among very young children (Pines 63; Morris 259). Needles calls NVBs "regressive behavior," and Deutsch says that the "mind uses the body to release anxiety" (Eisenberg and Smith 44-45). According to attitude theory, "emotions are a response to action," i.e., readiness to act induces the related emotional state. Finally, classical psychoanalytic theory states that similar psychological mechanisms operating on the body produce universal forms of the expression of feelings.

Eisenberg relates an interesting experiment by Bull. The subjects were hypnotized, told to feel a particular emotion and to assume the appropriate posture. They were then instructed to hold that posture but to feel the opposite emotion. When the subjects reported they had no new feelings while retaining their first posture, Bull concluded that there is a functional and irreversible relation between physiological and emotional attitudes (44). Eisenberg does not mention if Bull's experiment tested smiling as a reflection of attitudes. Nevertheless, such an experiment should be able to determine if smiling is indeed an innately human characteristic.

Does facial expression always determine an observer's interpretation of hand or body gestures? This field study indicates that in the case of definite nonverbal emblems, the answer is no, but facial expression does

affect that interpretation. In this study, gestures 10 and 22 (thumb-index circle) and gesture 11 (thumb-up) were examined in the Isolate Check (Table 3), pictured with and without a smile. While the number of respondents was uneven, 100 percent of raters viewing the two gestures with a smile interpreted them as variants of "OK." On the other hand, in both cases, the gestures without smiles showed some observer confusion between positive and negative meanings: 1) gesture 11b was still considered to mean "OK" by 63 percent while 37 percent offered negative interpretations; and 2) 98 percent rated gesture 22 as a negative compared with only 26 percent who rated it as "zero" during the primary study (see Table 2). The informants were also aware of additional, other culture-specific functions of both gestures.

The postulate, that the smile is a universal gesture of happiness, is supported by virtually all the literature on facial expressions. After Darwin, Eibl-Eibesfeldt and Ekman and Friesen are among the strongest proponents of the theory that there are innate, universal expressions which are the products of evolution.

On the other hand, there are researchers who deny the notion of expressive universals. Among these are La Barre, Birdwhistell, Morris, and Hall. These scholars argue that each society's prescriptions for manipulation of facial expressions and other gestures ("social display rules") override any possibly innate instinctive behavior in humans. So if all cultures prescribe some degree of facial expression masking and behavioral control in different life situations, it seems unimportant whether the outcome is due to instinct or culture. Nevertheless, all the research on facial expressions agree that the expressions of basic emotional states--happiness, fear, disgust, surprise, and anger--are universally performed and recognized across cultures.

Though a smile is essentially an indicator of happiness, its additional connotations and functions vary. Among Puerto Ricans, a smile can replace a verbal politeness formula (Pennycook 269). Smiling is a social duty in Japan to avoid inflicting negative feelings on others (Kirch 417). A smile is an indication of attractiveness in the United States, especially for women (Ney and Gawlas 7-8, 22). A smile can also be an aspect of appeasement behavior, particularly in children and women (Pines 61; Henley 171). The problem that arises is, to correctly assess the internal state of a smiling person one must understand how that gesturer was taught to manipulate that behavior for social purposes.

THE PROBLEM

A previous study done by the investigators in the United States has been designed to determine where Hebrew speakers' gestures might differ from those of Arabic and American English speakers. Of 81 gestures observed in that study, 69 percent proved to have different meanings across two or all three of those languages. These results indicated the importance of developing a third taxonomy, Hebrew-related gestures.

As mentioned, possibly the only research on contemporary Hebrew speakers' gesturing has been done by Broide and Schneller. Individually, their studies have not produced conclusive evidence of nonverbal emblems for Hebrew speakers. However, combined with this study to broaden the range of ethnicities represented in the informant samples, it may be possible to define a small set of nonverbal emblems related to contemporary Hebrew discourse.

METHOD

Subject Sample

The first group of informants (Group I) consisted of 200 college students. The second group of informants (Group II) consisted of 75 people including college students, members of YMCA classes for pensioners, and others encountered by chance.

As illustrated in Table 4, the sample was not clearly representative of the general Israeli population: 1) the percentages of people aged 20-24 was much higher than for the population of Israel; 2) the percentages of Sephardic and Ashkenazic ethnicity varied between the two groups and the national percentages; 3) the percentage of non-Jews was less than in the Israeli population; and 4) the ratios of males to females differed considerably between the sample groups and the Israeli population.

While an effort was made to include more women, and broader ranges of age and ethnicity among Group II informants, these people indicated too little personal information on the test instrument to impact significantly on the results. Many indicated only their interpretations of gestures encoded.

The Instrument

Raphael Schneller's form, "Investigations of Interpersonal Communication in Israel" (IICI), was employed. On the form, informants are asked to indicate their: 1) age, 2) gender, 3) length of time in Israel, 4) father's national origin, and 5) mother's national origin. The form is thereafter set up in five columns to be filled in with: 1) gesture number, 2) "yes" or "no" regarding recognition of each gesture as meaningful, 3) the meaning of the gesture, 4) how sure the informant is of his or her interpretation (on a scale of 1-5), and 5) where the informant learned the gesture (at home or in the environs). (The form described is in Hebrew, therefore not provided. Copies are available upon request.)

Procedure

The 26 gestures common to classroom interaction, shown in Table 1, were chosen on the basis of the investigator's teaching experience, consultation with associates, and Schneller's SIET (Table 5). The investigator's encoding of those gestures was initially approved by ten

acquaintances who ages ranged from nine to 65 years and whose national and ethnic backgrounds varied.

Several instructors at Tel Hai-Rodman Regional College graciously donated time at either the beginning or end of two class sessions a week apart in order for Group I to be surveyed. The first session, which lasted about one-half hour, involved an introduction to the project and decoding of the gestures by informants. In gauging consensus among Group I (and Group II as well), allowance was made for fine semantic differences in interpretation, e.g., "accurate" interpretations of gesture 2 consisted of "yes," "agreement," "positive," "correct," "understood," "OK," "of course," and "acceptable," etc.

The second session, which lasted about one-quarter hour, had two aspects: 1) informant encoding of the gestures to compare with the investigator's previous encoding, and 2) the Isolate Check. As part of the primary survey, the investigator verbalized the intentional meaning of the 26 gestures being tested. Informants were asked to encode them and then were reminded of the investigator's encoding. Agreement or disagreement was noted on the IICI form. This test was suggested by Schneller, but this investigator feels that since there can be several semantically equivalent gestures, this comparison was not useful in this study. However, informant encoding variations will be considered in a future study as they are a significant subject for investigation.

The second aspect of the second session, however, did test for fine semantic differences in decoding. Pairs and triplets of similar gestures were isolated to elicit exact semantic differences for several similar gestures, rather than just "good" or "negative" (Table 3). In this test, the five cards were held up and the investigator encoded the gestures as well while the informants noted their interpretations on the back of the IICI form. Sets included gestures 10 and 11 tested for the effect of smiling, gestures 19 and 8, 14 and 20, and 6, 5 and 24 tested for the effect of motion variation, and gestures 2, 11 and 10 compared for semantic variation.

After completion of the two sessions of the primary survey, potential emblems (gestures 1, 3, 4, 5, 7, 10, 11) were encoded by the investigator for Group II in single sessions of about 20 minutes. Supposed universal gestures were excepted. Gestures 15 and 19 were also retested to confirm the effects of the direction of the motions involved.

During all tests, the investigator-encoder maintained a relatively neutral, unexpressive facial pose except where the affect of a smile versus a "neutral" facial expression was being checked. The informants generally questioned the expression change and were advised when its significance was being tested.

RESULTS

Where both groups were tested for decoding (gestures 1, 3, 4, 5, 7, 10, 11, 15, and 19), the results are shown on Table 2 for the average of

the combined ratings of Group I and Group II. Table 2 also notes where gestures showed significant ambiguity among the informants by: 1) listing alternative meanings that showed at least 20 percent consensus unto themselves, and 2) showing where at least 10 percent of informants left the appropriate space blank ("unrecognized"). It is interesting to note how often the informants preferred omitting any interpretation rather than guessing wildly. This finding suggests that nonverbal language is not as negotiable as verbal language, that is, meanings for NVBs are attributed immediately, without time being taken to consider various interpretations.

Gestures 1 through 8 were interpreted accurately by over 90 percent of the informants of both subject sample groups and therefore may be considered emblems. Gestures 7 through 11 were interpreted accurately by at least 80 percent of the informants. These may be considered tentative emblems because the interpretations of these gestures varied more widely than interpretations of the first eight gestures, though not enough to alter the nature of the intended message.

The rest of the tested gestures proved quite ambiguous. Their interpretations varied widely enough to cause miscommunication. For example, the intention for gesture 22 was "zero," "worthless," yet more informants thought it meant the opposite, "100 percent," "excellent" even without an accompanying smile.

The eleven potential emblems derived from this study appear to match those "verified" by Broide. Neither of the studies' sets of informants was ethnically comparable to the Israeli populace at large, nor were the groups well balanced between the two major ethnic segments of the Israeli population: Ashkenazi and Sephardi. However, since together the two studies do encompass those main classifications, and they agree on gestures that are emblematic, it may be reasonable to call the gestures in Table 6 "Emblematic Gestures of Contemporary Hebrew." (Though the investigators did not have access to Broide's films, the Hebrew and English descriptions of emblems and verbalization of their meanings indicates that the gestures are the same ones referred to in this study.)

DISCUSSION

While this study attempted to label some conversational gestures as emblematic for Hebrew speakers, it seems to have coincidentally confirmed Schneller's belief that as yet there are no uniquely Israeli emblems. The few gestures that showed over 80 percent agreement are not unique to Hebrew speakers. Furthermore, the significant split in interpretation for gestures 12-26 indicates that relatively few gestures are at all emblematic for Hebrew speakers. Further research is necessary to discover gestures that might be unique to the Israeli people and regularly conducted surveys will be necessary to trace the development of other such emblems.

In addition, despite literature that includes gestures 13 and 14 among "universals" of NVB, these gestures showed less than 80 percent

agreement among the informants. This finding indicates a need to reexamine the bases for classifying these and any other gestures "universals."

Four correlations of the effects of age, ethnicity, years in a country, and gender that are suggested by the results of this study seem more universal than unique to Israelies. These correlations confirm the indications of the studies done by Broide and Schneller as well.

1. Increased age and years in Israel correlate negatively with expressions of certainty and accurate interpretations. While natives showed the highest rates of certainty and accurate interpretations, they generally belonged to the majority age group of 20-24. There is the additional possibility that doubt or willingness to express doubt increases with age.

2. Ethnicity of parents has no significant effect on certainty of interpretation. There is an indication, however, the Sephardic people tend to express more certainty or are less willing to express doubt than Askenazic people.

3. Ethnicity of parents has no significant effect on correct interpretation. This finding confirms that of a pilot study conducted in the United States.

4. Gender has no significant effect on certainty or correctness of interpretation. However, there is an indication that women are more willing than men to express doubt.

The above findings seem to confirm established notions about the positive approach to life of young adults versus older people and about women's approach to decision making in relation to men's. However, as the nature of the Hebrew-speaking population and the relative status of its various ethnic and gender groups change over time, these findings might be reexamined to trace how the interaction of the variables changes.

Other personal information supplied by the informants did not seem to impact on their responses. Whether both parents derived from the same or different ethnic or national groups did not seem to affect certainty or correctness of interpretation. Also, informants generally could not recall where they had learned the tested gestures. Many wrote both "home" and "environs." On the survey form very few indicated having learned any particular gestures during their army duty.

Over time, one would not only expect the number of Hebrew-related emblems to increase but consensus about such emblems should increase as well. Therefore, a standard for gauging "consensus" in this type of study needs to be established. Previous researchers of nonverbal emblems have accepted around 70 percent interpretation agreement among

informants. But this study has shown that the number of possible alternate meanings in the remaining 30 percent or even only 20 percent may constitute significant ambiguities that could cause miscommunication.

So much ambiguity vitiates the definitiveness of supposed emblems. For instance, while 68 percent of informants in this study interpreted gesture 17 as "thinking," 24 percent read it as "crazy." Similarly, interpretations of gesture 26 ranged from "enough" to "stop" to "go back." These differences are great enough to alter the nature of an interaction. A more radical discrepancy is the split interpretation of gesture 22: 26 percent marked it as meaning "zero," "bad," while 60 percent marked it as "100 percent," "excellent." On the other hand, variations on "yes" (gesture 2) such as "positive," "agree," or "OK," are not likely to cause miscommunication so the breakdown of consensus for the particular semantic differences is insignificant. These are the differences of intensity, not of meaning, that Broide refers to (93).

This research suggests that where at least 90 percent of informants agree on a single interpretation of a gesture, it is reasonably safe to consider it an emblem, at least for the population represented by the subject sample. Further studies of such gestures are indicated with samples that are better balanced for gender, age, and background relative to the nature of the conclusions sought and to the proportions in the population to which the results are to be generalized. In developing taxonomies of NVBs for speakers of a particular language, those proportions should try to account for the ethnic subgroups of a nation or the national subgroups of an internationally-spoken language.

In addition, various related studies should be compared for agreement and disagreement of findings. How do the findings of this study relate to those of Efron, Broide and Schneller?

Broide affirmed Efron's findings, that Jewish gestures are action oriented rather than expressions of emotion. The gestures named here as emblems fit into that categorization, as do most of the gestures in the study. This conclusion indicates that Schneller may be incorrect in his assessment that there is "no pan-anything." If emblematic gestures themselves do not generalize across large cultural groups, perhaps the nature of their gesturing does.

It is interesting to consider that the nature of a large cultural group's gesturing continues over time, and in the case of Israelis' Hebrew gesturing, across differing cultural mixes as well. Recall, for example, that Efron stated that a group's gesturing alters with changes in that group's environment. On one hand, today's Israelis have grown up in a culture dominated by Jews of East European background, the same as Efron had tested. Broide's Israeli subjects likewise were of East European parentage. But on the other hand, the Jews of Israel, Europe and the United States have not only had quite different lifestyles, but have mixed with many different cultures in their respective countries, and yet there is some continuity in the nature of gesturing among Jews, regardless of their language.

Ethnic background was also found to be insignificant regarding expressions of interpretation certainty. The only correlations noted in this study among degrees of certainty and accurate decoding were indications in support of Schneller's findings. Schneller found that high degrees of certainty among informants regarding their interpretations did not correlate positively with high degrees of correct interpretation ("Empathy" 311). Rather, low levels of certainty seem to lead to a mental search for alternative answers while high levels of certainty induce informants to accept their immediate guesses. Schneller concluded that high and medium levels of confidence (on a scale of 1-5) yield only moderate accuracy as do low levels of confidence. Broide's informants also rated their certainty, but she does not discuss any findings about this matter.

Cross-tabulations in this study support that conclusion. Emblematic gestures were correctly interpreted regardless of the levels of certainty indicated on the test while other ambiguous gestures were interpreted in a variety of ways regardless of indicated certainty.

Despite any statistical analysis, emblem research remains essentially a qualitative endeavor, dependent on scientifically naive informants whose judgments are largely culture-bound, subjective and emotional. These individual studies will probably continue to be relatively small, making it difficult to generalize about the "typical" behaviors of language groups. This problem can be overcome somewhat by designing studies to complement each other as Broide's and this one do. When taken together, the combined results offer promise of a gestalt of societies.

It might also be interesting to design a longitudinal study that traces the semantic variations of the gestures of a particular subgroup through social mobility and status change. The instance of the largely Sephardic Tel Hai informants comes to mind. The Sephardic people in Israel (principally the North African Jews) have been the "underdogs" socially and economically until recently. The current group of young adults is achieving higher education, better jobs, and consequently increased social status than their parents. On one hand, it could be assumed that they will be assimilating with the currently dominant Ashkenazic communicative system. On the other hand, as more and more Sephardic people come to social and political prominence, the nature of interpersonal communication in Israel is bound to change. It would be most interesting to see what directions are taken by upper and middle class NVB.

In general, as people move upwards socially, they adopt the behavior patterns of the class into which they are assimilating. Behaviors are also patterned after those to which people are exposed by the media or by tourism. This adoption can result in behavioral overlapping or seeming universality of behaviors. Therefore, it may seem that this research failed to reveal uniquely Israeli, Hebrew-related gestural emblems. However, behavioral "universals" are often so widespread in gesture or in

meaning, but not in both. Thus, it *is* important to specify what a particular gesture means among what people.

Perhaps most significantly, studies like this one can show that the notion of societal homogeneity is fallacious. Hopefully, the planners and controllers of societies will attend to the intracultural differences revealed by such studies and employ the findings to improve the interrelations of the subgroups within their purview.

LIMITATIONS

Clearly the study, while confirming the findings of previous research and illuminating emblematic gestures of Hebrew speakers in Israel, nonetheless, has several limitations of both methodology and of generalizability.

First, the nature of the sample is a limitation. As Table 4 indicates, the sample in this study was not balanced in that the numerous subcultures in Israel were not proportionally represented.

Second, the physical parameters of gestures depend in part on conversational context. Gestures here were tested out of the context of conversation.

Third, there was potential for coding bias. There is indeed a chance the researchers' coding may attribute significance to gestures where the gestures could be incidental, accidental, or totally insignificant from the subjects' perspective.

Fourth, and related to coding, was the lack of a unified and validated gesture labelling system. This is a serious weakness in terms of replicability and validity.

Fifth, and related to researcher bias is the background to the investigator who encoded the gestures. Though a speaker of Hebrew and a resident of Israel for six year, she is originally from the United States and might well have brought cultural bias by being, to some extent, an outsider and have carried inherent unexamined assumptions into the observation and encoding processes.

CONCLUSION

A field study was conducted in Israel to identify emblematic gestures recognized and used by Hebrew speakers. Studies which have identified the emblematic gestures of particular ethnic or national groups are reviewed and criticized. This study seeks to contribute increased rigor and systematicity to the identification of particular groups' emblematic gestures.

Twenty-six gestures commonly used in classroom interaction were selected for testing. The instrument used was Schneller's form, "Investigations of Interpersonal Communication in Israel." Subjects included college students, members of YMCA classes for pensioners, and others. On the instrument, subjects noted their recognition and interpretations of

the investigator's encoding intentions, their certainty or interpretation and where they learned each gesture.

Whereas previous studies of this nature accepted around 70 percent interpretive agreement among subjects, this study indicates that at least 90 percent is a more reliable measure by which to label gestures "emblems." In addition, correlations were tabulated for the effects of subjects' age, ethnicity, years in Israel, certainty about interpretation, and accuracy of interpretation.

The findings of this study were: (1) eight gestures were identified as emblems, and three more gestures identified as possible emblems, (2) slightly negative although insignificant correlations were found between increased age, years in Israel, expressed certainty of interpretation and accuracy of interpretation, (3) natives and subjects from 20-24 years of age tended to have the highest rates of expressed certainty of interpretation as well as accuracy of interpretation.

The findings are compared with those of three other studies of Jews' gesturing and differences between the studies are considered. Recommendations include continuing such studies and comparing the results of related projects in order to form a comprehensive picture of particular groups of people.

Limitations were discussed. These included: (1) a less than representative sample, (2) lack of a consistent conversational context, (3) potential for distortion in the decoding process, (4) the lack of a unified gesture labelling system, and (5) the possibility of cultural or researcher bias.

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Table 1

Gestures Common to Classroom Interaction

Gesture	Meaning	Picture	Description
1	Indecision "So-so"		Palm rotated up-down
2	Affirmation "Yes"		Head nod up-down
3	Salutation "Hello," "goodbye"		Vertical palm outward, hand waved side-side above head

Table 1, continued

Gestures Common to Classroom Interaction

Gesture	Meaning	Picture	Description
4	Cessation, "Wait"		Hand purse held upwards, jiggled
5	Dismissal "Go away"		Palm downward, hand "flicked"
6	Negative answer, "No"		Head shake side-side

Table 1, continued

Gestures Common to Classroom Interaction

Gesture	Meaning	Picture	Description
7	Beckon "Come here"		Palm upward, arm extended, 4 fingers beckon
8	Admonition "No"		Index-finger wagged side-side
9	Uncertainty "I don't know"		Shoulders shrugged

Table 1, continued

Gestures Common to Classroom Interaction

Gesture	Meaning	Picture	Description
10	Affirmation "OK," "excellent"		Thumb-index circle with smile
11	Affirmation "OK," "excellent"		Thumb-up with smile
12	Can't hear		Fingers touch side of ear

Table 1, continued

Gestures Common to Classroom Interaction

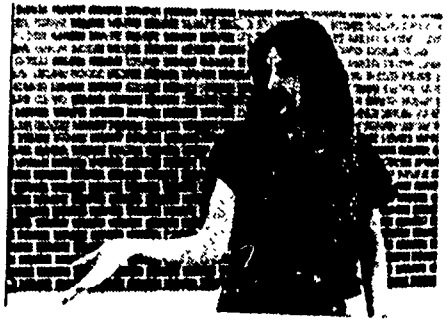
Gesture	Meaning	Picture	Description
13	Admonition "Stop"		Hands held chest level, palms outward to observer
14	Request "Give"		Palm up, hand held out and still
15	A little bit		Hand purse facing downward

Table 1, continued

Gestures Common to Classroom Interaction

Gesture	Meaning	Picture	Description
16	Regret, embarrassment		Head slightly tilted, bite lower lip
17	Thinking		Index finger points to head and touches side of head; might tap head
18	A little bit		Thumb-index finger together, hand purse held upwards and still

Table 1, continued

Gestures Common to Classroom Interaction

Gesture	Meaning	Picture	Description
19	Warning		Index finger raised from fist, wagged forward-backward
20	Caution, admonition "Slowly!"		Hand purse palm up, moved up-down slowly
21	Indecision "Maybe"		Hands held palm upward and outward; head bob upwards and still

Table 1, continued

Gestures Common to Classroom Interaction

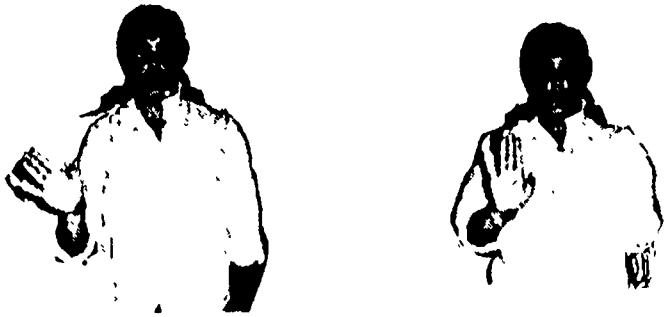
Gesture	Meaning	Picture	Description
22	Worthlessness "Zero"		Thumb-index finger circle
23	Compliment "Nice job!"		Palm up, held outward and still; smile
24	Admonition "No good!"		Palm vertical toward observer, waved slowly side-side from wrist

Table 1, continued

Gestures Common to Classroom Interaction

Gesture	Meaning	Picture	Description
25	Salutation		Palm out, hand waved up-down from wrist
26	Enough!		Hand-push toward observer

Source: "Emblematic Gestures Among Hebrew Speakers in Israel" (forthcoming) 1987.

Table 2

Ranked Percentage of Interpretation Accuracy

(Percentages are rounded to the next highest number.)

Gesture	Intended Meaning	% Interp. Accuracy	Alternative Meaning	% Interp. Accuracy
1	So-So	97		
2	Yes	97		
3	Salutation	96		
4	Wait	95		
5	Go	95		
6	No	95		
7	Come here	92		
8			No	91*
9	Don't know	89		
10	OK	89		
11	OK	81		
12	Can't hear	79	(Unrecognized)	18
13	Stop	79	(Unrecognized)	22
14	Give	76	(Unrecognized)	14
15	A little	74	(Unrecognized)	25
16	Regret	71	(Unrecognized)	29
17	Thinking	68	Crazy	24
18	A little	61	(Unrecognized)	30
19	Warning	54	(Unrecognized)	43
20	Slowly	51	Wait	38
21	Maybe	49	(Unrecognized)	42
22	Zero	26	100%, excellent	60
			(Unrecognized)	14
23	Nice job!	25	(Unrecognized)	40
			Salutation	36
24	No good	20	Salutation	47
			(Unrecognized)	34
25	Salutation	18	Wait	30
			Go	21
26	Enough	7	Go back	32
			Stop, wait	23

*The original intended meaning was "warning" which received only 5% consensus. "No" was the alternative meaning offered for the gesture. Since "no" shows such high consensus, it should be considered an emblem.

Source: "Emblematic Gestures Among Hebrew Speakers in Israel" (forthcoming)(1987).

Table 3

Gesture Isolate Check for Semantic Differences

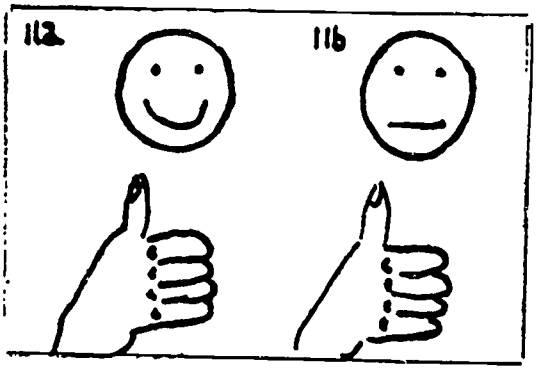
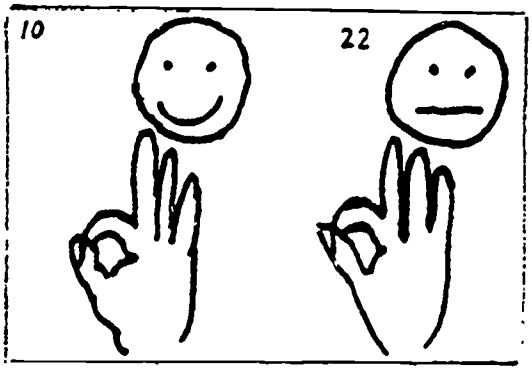
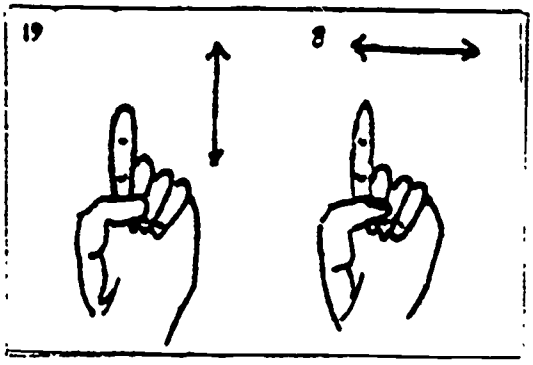
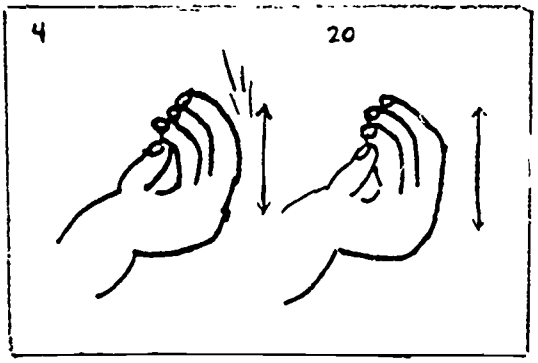
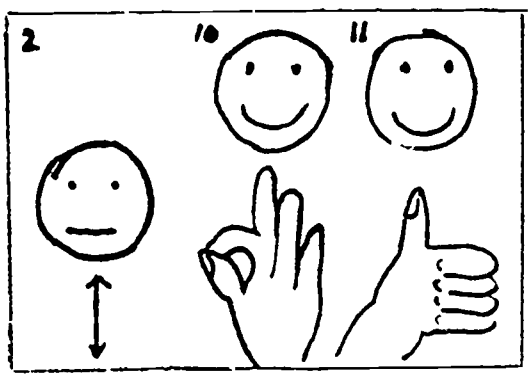
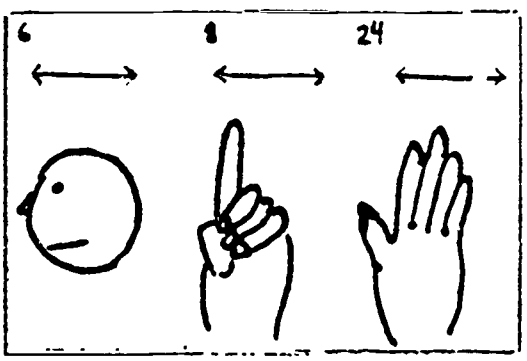
	Gesture	Intended Meaning	% Interp. Accuracy
CARD A			
	11a	OK, excellent	100
	11b	OK, excellent	63
		Negative	37
CARD B			
	0	OK	100
	22	Negative	98
CARD C			
	19	Warning	98
	8	No!	92

Table 3

Gesture Isolate Check for Semantic Differences

	Gesture	Intended Meaning	% Interp. Accuracy
CARD D			
	4	Wait	91
	20	Slowly, patience	75
		Wait	25
CARD E			
	2	Yes, OK	100
	10	OK, excellent	100
	11	OK, excellent	100
CARD F			
	6	No	100
	8	No	92
	24	Various negatives	73

Source: "Emblematic Gestures Among Hebrew Speakers in Israel" (forthcoming)(1987).

Table 4

Composition of Subject Sample by Percentages
Relative to the Population of Israel*

	Group I	Group II	Israelis (1984 census)
Sephardi	73	51	43
Ashkenazi	19	41	16
No indication of ethnicity	8	8	--
Non-Jews	3	Ø	17
Males	77	19	50
Females	23	40	50
20 - 24 years of age	55	49	8

Source: "Emblematic Gestures Among Hebrew Speakers in Israel" (forthcoming) 1987. Statistical Abstract of Israel 36 (1985): 62, 70-71.

Table 5

Schneller Israel Emblem Test

Gesture	Intended Meaning	Description	Interpretive Consensus (%)
1	Slowly	Hand purse moved slowly up-down	72.6
2	Enough	Hand flicked side-side	63.5
3	Hearing	Ear touched lightly	46.8
4	Thinking	Cheek stroked	55.5
5	Thinking	Temple tapped	40.1
6	Thinking	Nose tapped	23.8
7	Slowly	Hands pushed downward at 45° angle	24.4
8	Ok, victory	Thumb raised from fist	20.0
9	So-so	Palm rotated up-down	44.2

Source: Schneller Israel Emblem Test, 1985 (unpublished).

Table 6

Emblematic Gestures of Contemporary Hebrew

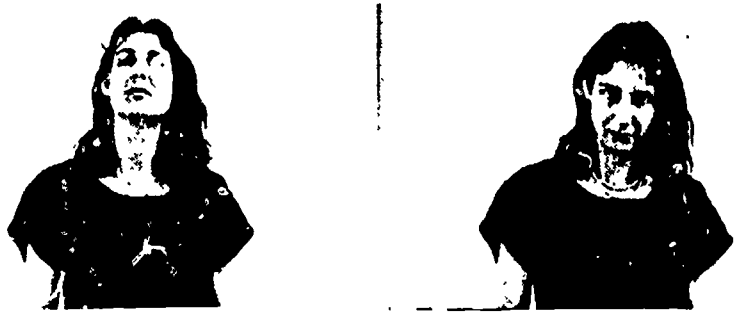
Gesture	Meaning	Picture	Description
1	Indecision "So-so"		Palm rotated up-down
2	Affirmation "Yes"		Head nod up-down
3	Salutation "Hello," "goodbye"		Vertical palm outward, hand waved side-side above head

Table 6, continued

Emblematic Gestures of Contemporary Hebrew

Gesture	Meaning	Picture	Description
4	Cessation, "Wait"		Hand purse held upwards, jiggled
5	Dismissal "Go away"		Palm downward, hand "flicked"
6	Negative answer, "No"		Head shake side-side

Table 6, continued

Emblematic Gestures of Contemporary Hebrew

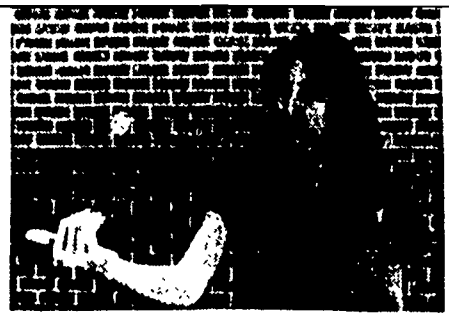
Gesture	Meaning	Picture	Description
7	Beckon "Come here"		Palm upward, arm extended, 4 fingers beckon
8	Admonition "No"		Index-finger wagged side-side
9	Uncertainty "I don't know"		Shoulders shrugged

Table 6, continued

Emblematic Gestures of Contemporary Hebrew

Gesture	Meaning	Picture	Description
10	Affirmation "OK," "excellent"		Thumb-index circle with smile
11	Affirmation "OK," "excellent"		Thumb-up with smile

Source: "Emblematic Gestures among Hebrew Speakers in Israel" (forthcoming) 1987.