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MICROPHONES

To the editor of TRADITION:

As both a Musmach and a professional electronics engineer, I would like to respond to Rabbi Poliakoff's criticism of Rabbi Feinstein's interdiction of microphones on Shabbat (TRADITION, Spring 1974). There is little point in reiterating the well-known and abundant halakhic literature which corroborates Rabbi Feinstein's judgment. Instead, I propose to present some salient facts about electronic amplifiers and public address systems which are relevant to Shabbat observance.

First, however, I must criticize Rabbi Poliakoff for the impudence expressed toward Rabbi Feinstein; for the inconsistency of quoting "the highly esteemed sage and scholar J. E. Henkin Z'L" in repudiation of one of Rabbi Feinstein's comments, when the same Rabbi Henkin explicitly forbids the use of microphones on Shabbat; and for directing his criticisms to the readers of TRADITION in an effort to discredit Rabbi Feinstein instead of making a mature and

constructive effort to resolve matters with Rabbi Feinstein.

The physical phenomenon known as sound2 is transverse mechanical vibrations which are capable of producing auditory sensation. These to-and-fro movements of the air have two major characteristics. The number of times per second that the air moves back and forth is called the frequency of the sound and corresponds to the musical term pitch. The intensity of motion of the air corresponds to the loudness of the sound. Sound is a mechanical phenomenon produced by a vibrating object and transmitted through a vibrating mechanical medium; sound is not transmitted through wires nor is it manipulated by electronic vacuum tubes or transistors.

The function of a microphone is to regulate the flow of electricity in an electronic circuit, in a correspondence which is directly analagous to the frequency and intensity of sounds impinging on the microphone.³ Electronic amplifying elements such as tubes or transistors enable the feeble mechanical vibrations reaching the microphone to control the flow of large

amounts of electrical energy. This modulated flow of electricity is directed, through wires, to a loud-speaker causing it to vibrate back and forth and consequently to initiate a new sound which is physically distinct from the original sound sensed by the microphone. If the amplification equipment is well designed and functions properly, this new sound will be subjectively similar to the original in information content.

I would suggest that it is this similarity, coupled with the rapidity with which the new sound is created and an association of this process with the old cardboard megaphone, which is responsible for a great deal of confusion and difficulty in forming a conceptual basis for dealing with amplification systems. A small change in the electronic circuitry could cause the loudspeaker to emit a noisy distortion in response to the sounds sensed by the microphone. Such a device would easily be understood to constitute a sound producing instrument and yet none of the physical processes (and hence halakhic considerations) would be altered by such minor additions to the electronic circuit.

Consequently, if one is willing to acknowledge that blowing⁴ on the keys of an electronic organ with sufficient force to activate the instrument would constitute an infraction of *Shabbat* observance,⁵ one must acknowledge that talking into a microphone and thus activating the loudspeaker to emit a sound is equally an infraction of *Shabbat* observance.

This point of Hashma'as Kol is

the most common basis for forbidding the use of microphones on Shabbat. No amount of technological refinement will resolve this consideration; it can be circumvented only by a totally different and presently unconceived technology.

In response to the question of whether talking into the microphone causes more electricity to be consumed, it must be pointed out that the answer is contingent upon the design of the amplifier. However, virtually all amplifiers⁶ of the power level required by a public address system utilize a configuration known as a "class AB amplifier."7 This system does indeed cause significantly more electricity to be consumed when speaking into the microphone.8 Rabbi Poliakoff and his advisers are invited to a demonstration of this phenomenon in my laboratory at any time (except on Shabbat). Indeed the junction temperature of the output transistors rises by typ-100 degrees Fahrenheit, sometimes reaching over 200 degrees Fahrenheit, as a consequence of the change from quiescent (no speech) conditions to an exercised condition.9 However, whether or not drawing current constitutes a violation of Shabbat¹⁰ is uncertain, as Rabbi Feinstein himself indicates.

In response to Rabbi Poliakoff's assertion that "the eminent Rabbi's facts are not correct" with regard to the need to adjust microphone systems, I would suggest that it is Rabbi Poliakoff who is in need of correction. His statement that modern systems are easy to control.

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and regulate "as we know from personal experience" brings to mind a personal experience of October 1974. Hewlett-Packard, one of the most respected manufacturof sophisticated electronic equipment, encountered the familiar problem of "howling" in their microphone system on the occasion of inaugurating a new office complex in front of an audience of hundreds of clients. Perhaps Rabbi Poliakoff would be willing to share his expertise with Hewlett-Packard's chief engineer.

With regard to Rabbi Poliakoff's contention that "nobody except a trained technician can fix it" when a system goes bad: it is common knowledge that a simple slap on the side of the cabinet is sufficient to effect temporary repair of a variety of intermittent faults, including dirty or loose volume control contacts, printed circuit fissures and improper seating of connector contacts.

Rabbi Poliakoff further displays his unfamiliarity with the device

which he freely permits by confusing the "plates" of the tuning capacitor in a radio with the volume control of an amplifier. The latter consists of a metallic contact which slides, under pressure, across a wire-sound or carbon surface. In the process of doing so, noise is often generated at the loudspeaker, especially if the system has aged for more than five years or so. Adjusting this control can cause the output transistors to rise in temperature; it can initiate "howling" and in many amplifiers the control shaft is also linked with the on-off switch.

Finally, his comment that if something should go wrong, one is simply forbidden to fix it, shows a complete lack of comprehension of the concept of "lest one fix it" (Shemma Yitaken), and reveals that Rabbi Poliakoff's interpretation is diametrically opposite to the Talmud's intent.

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NOTES

- 1. Edus le-Yisrael, Rabbi J. E. Henkin, p. 122.
- 2. The International Dictionary of Physics and Electronics, D. Van Nostrand Co., 1961, p. 1055.
 - 3. Ibid., p. 744.
- 4. Yesodei Yeshurun, part 5, Rabbi Gedalia Felder, p. 149. Rabbi Felder cites five Talmudic sources and ten latter-day authorities in demonstrating that performance of an action by the breath or voice is equivalent to direct, manual performance.
 - 5. Remah, Shulchan 'Arukh, Orech Chaim 338:1.
- 6. Audio Power Amplifiers, RCA Ltd. Technical Publication APA-550, 1973, p. 6.
- 7. Semiconductor Electronics, J. F. Gibbons, McGraw-Hill, 1966, chapter 13, section 5.3, pp. 536-7.

- 8. Ibid., note p. 537, "... the power drain is very small (ideally zero) (sic) when there is no signal applied," and equation 13.81 on page 541. See also Handbook of Basic Transistor Circuits and Measurements, R. D. Thompson et al., SEEC volume 7, John Wiley and Sons, 1967, p. 27.
- 9. Methods and Test Procedures for Achieving Various Levels of Power Transistor Reliability, D. M. Baugher, L. J. Gallace, RCA Ltd. Technical Publication ST-6209, 1973, p. 5, figure 11 and table 4.
- 10. Bais Yitzchak, Yoreh De'ah, part 2, Maftechos No. 31 indicates that a prohibition of Molid is involved (Cited in Yesodei Yeshurun loc. cit., p. 150).

To the editor of TRADITION:

The vital nature of Halakhah is best exemplified by the spirited debates concerning the application of traditional law to modern life. Thus, scholarly discussions on the permissibility of using mechanical or electrical devices on the Sabbath are both common and proper. But it is expected that proponents of any view which may involve a desecration of the Sabbath will utilize the most stringent standards before permitting an action that may constitute a malakhah. It was thus disheartening to read Rabbi Manuel Poliakoff's poorly ceived position permitting the use of the microphone on the Sabbath. His glib attempt to undermine the position of Rabbi Moshe Feinstein, Shlita, prohibiting the microphone on Shabbat, shows a total lack of understanding of the issues involved.

In Igrot Moshe Orach Chaim III (responsa 55), Rabbi Feinstein, Shlita, lists four reasons for his prohibition, three of which are definitely of Rabbinic origin while the fourth may involve either a Rabbinic or Torah prohibition. •The

first reason is the Rabbinic prohibition of Maris Eyin. Since it is not the practice to turn on a microphone prior to its use on weekdays, therefore the use of a microphone on Sabbat is prohibited even if it is turned on before in order that people will not think that the microphone was turned on during the Sabbath. In supporting this, Rabbi Feinstein cites the prohibition of loading a windmill before the Sabbath since the noise it makes on Sabbath may cause people to think the grinding was initiated on Shabbat (Tosfot, Rosh, Ramah).

Rabbi Poliakoff presents a number of objections to this reasoning: 1. The Talmudic source for this prohibition is the debate between Rabbah who prohibits preloading the windmill "because it gives forth a sound" and Rabbi Yosef who offers a different reason. In concluding that the prohibition may not be due to the emission of sound, Rabbi Poliakoff has misunderstood the argument. Rabbi Yosef doesn't argue with Rabbah's prohibition because of a "sound emitting act" but merely in its application to a windmill. Rabbi Yosef holds that since grinding takes a long time, a person hearing the windmill on *Shabbat* would not necessarily think that the process was initiated on *Shabbat* itself (it could have started long before *Shabbat*). But where there is reason to suspect the production of sound (where it is not usual to start the action before *Shabbat*) Rav Yosef would prohibit like Rabbah.

2. Rabbi Poliakoff further states that most Rishonim, including the Mechaber and the Ramah ("except in the presence of a compelling situation"), permit preloading on erev Shabbat even if it will continue to grind during Shabbat (and emit a noise). Therefore, he adds, Rabbah's reason of "because it gives forth a sound" is not held by latter day poskim. He is mistaken and is misinterpreting the Ramah who states in Orach Chaim 252 (5) that preloading is prohibited except if there will be a substantial monetary loss. A careful examination of the Mechaber also reveals that he too accepts Rabbah's view. We see this from the following: The Mechaber in the Bait Yosef cites the opinion of the Agur (Orach Chaim 338) which states that even those who prohibit pre-loading a windmill before Shabbat do not prohibit setting a chiming pendulum clock that will boom forth its chimes on Shabbat because it is common knowledge that the clock is set before and, therefore, no one will suspect him of having set the clock on Shabbat. Since the Mechaber gives this reason only for the clock, it is obvious that in other cases where sounds will

emerge and it is not usual to initiate the action before the sound (i.e., a microphone) the Mechaber will hold that even Rav Yosef admits that the issuance of a sound in such an instance would constitute *Maris Eyin* and be prohibited.

- 3. In explaining Rashi's understanding of Rabbah's prohibition, Rabbi Poliakoff states that it is because of "the loud noise of a grinding mill" and anything that "cheapen[s] the Shabbat mood is prohibited." He argues that since a microphone doesn't rupture the atmosphere of the Shabbat rest, it should be permitted. This is a miscomprehension of Rashi's point of view. "Cheapening the Shabbat" to Rashi does not mean that the noise itself cheapens the Shabbat but that a person hearing the noise of the mill will associate that noise with a melakhah (grinding) and that constitutes the desecration of the Shabbat.
- 4. According to Rabbi Poliakoff if we prohibit the use of a microphone on Shabbat because of Maris Eyin then we must also prohibit the use of an electric light for the same reason. Not so today, for it is obvious to everyone that the lights are set either before Shabbat or regulated by an electric clock so that there is no Maris Evin. Before the extensive use of timers, however, there probably was an issur of using a clock to regulate the lights on Shabbat. Fortunately, the halakhic question was never formally raised until the timers became widely used so the question of Maris Eyin involving timers was moot. (Indeed, if there were no other reasons to prohibit the mi-

crophone on *Shabbat* it might be possible to circumvent the problem of *Maris Eyin* through widespread publicity permitting its use if it were turned on before *Shabbat*.)

Rabbi Feinstein's second reason is that the actual speaking into the microphone causes more current to be consumed than when just the amplifier is on and this involves a malakhah. This may be a Torah prohibition but it is surely at least Rabbinic. Rabbi Poliakoff cites the Applied Physics Lab of Johns Hopkins to refute Rabbi Feinstein's physical premise. He then tells us that Rabbi J. Henkin z'l holds that "the drawing of current on Shabbat is no melakhah, but whatever is accomplished with it is considered as though it were done by hand." When I questioned members of the Physics department of the Massachusetts Institute of Technology and Columbia University, the answer I received supported Rabbi Feinstein's view. Even according to Rabbi Henkin's, if the use of electricity, will accomplish a physical act, which in this case is the creation of a new sound. there will be a melakhah which is probably either Tikun Maneh or Makeh B'Patish. Rabbi Feinstein agrees with this (see point III) but takes issue with Rabbi Henkin by holding that the utilization of electricity may per se constitute a melakhah (Tikin Maneh, Makeh B'Patish or possibly even Havarah).

Rabbi Feinstein's next Rabbinic prohibition is that of a Gezairah similar to that prohibiting playing musical instruments on Shabbat since they may go bad and have

to be repaired on Shabbat. Rabbi Poliakoff counters that it is questionable whether we have the power to prohibit things today on the grounds of gezairah. Even if we did, he continues today's microphones are so sophisticated that we laymen aren't capable of fixing it or even if we could repair it the adjustments would only involve mechanical acts which do not constitute a melakhah, Finally, even if something does go wrong we could prohibit the congregation from touching the microphone system.

Rabbi Feinstein in another responsa concerning the microphone (Igrot Moshe Yoreh Deah II. responsa 5) states that "this is not a new gezairah, that we cannot proscribe by ourselves, because it was already decreed in the Gemara. And what distinction is there between a musical instrument or microphone since the gezairah itself is to prohibit what may come." The reason for prohibiting musical instruments is that maybe the sound will be off pitch and a person may come to tune it and this would constitute the melakhah of Tikun Maneh (it doesn't necessarily mean the instrument will break and need to be fixed). The same problem obviously holds true for the microphone (i.e., feedback, static, volume problems). Therefore, simply adjusting the controls would constitute a melakhah of Tikun Maneh, thus prompting the need for the gezairah prohibiting its use altogether (see Grunfeld The Sabbath, p. 52).

Finally, Rabbi Feinstein prohibits the microphone because the

change from human voice to electrical energy, causing creation of new sound presumably involves a melakhah. The Nolad here is probably Tikun Maneh or Makeh B'Patish. Here, again, the prohibition is only Rabbinic.

My objection to Rabbi Polia-koff's letter is not that he permits the use of a microphone on Shabbat. If true scholarly evidence supporting such a view could be mustered it would naturally receive the attention of all Torah sages. What aroused my concern was that Rabbi Poliakoff sought to justify a position he had previously held by striking blindly at scholarly proofs against his view. When dealing with the sanctity of Halakhah such behavior is highly unwarranted.

(Rabbi) Edward Burns Bronx, N. Y.

WOMEN

To the editor of TRADITION:

Ms. Pianko and the editorial board of TRADITION are to be complimented for the courage and clarity implicit in "Women and the Shofar" of the Fall 1974 edition of TRADITION. Ms. Pianko, unlike the faddish adherents of the heterodox Jewish feminism, affirms an a priori commitment to historical Judaism's Covenantal imperatives as the methodological starting point for any discussion of an authentic Jewish feminism. While she capably musters those sources which support her views, Ms. Pi-

anko fails to address the implications which follow from the sources which she quotes.

There is nothing inherently revolutionary in allowing women to obligate themselves as a community within Israel for mitzvot like shofar, tzitzit, or the raising of lulov and etrog. Talmudic Jewry's feminists took upon themselves the stricture of counting seven "clean" days after any instance of a stain the size of a mustard seed. Even those authorities which permit women to don the tzitzit prohibit, as Ms. Pianko correctly notes, the recitation of the benediction. Only with the Tosaphot are women permitted to recite a benediction which had hitherto been forbidden. Jewish feminists often argue that the Talmud and Maimonides permit the Scroll of Esther to be read by women because, like men, women share the obligation (see T. B. Megilah 4a). Jewish feminists must decide whether they wish to be literalists in the Maimonidean tradition which would allow complete participation in certain areas while prohibiting the liturgical participation now permitted in those Franco-German communities have accepted the authority of the Tosaphot. One might argue that women ought not pray the standard liturgy because the recitation of benedictions not assigned to them would constitute a "wasted benediction," a berakhah levatelah.

A final note on the feminist problem must ultimately address the often ignored Mishneh of *Horayot* 3:7 which posits that Jewish males have a greater sanctity than women simply because they are

obligated to keep time-bound mitz-vot. This statement is both sexist and Jewish. While I am unable to rationalize this view with my personal tastes, and I am sure most Jewish women, liberated or otherwise, would find this view problematic, a commitment to Torah as a whole, even when it might be distasteful to current or "trendy" vogues, is the condition of credibility and the mandate of tradition.

(Rabbi) Alan J. Yuter Baltimore, Md.

HYGIENIC REASONS FOR MITZVOT

To the editor of TRADITION:

My attention has been called to a communication by Rabbi Louis I. Rabinowitz, of Jerusalem (TRA-DITION, Fall 1973) in which he declares that there is a tendency to regard certain reasons for mitzvot as "axiomatic, for example. the therapeutic effect of circumcision, that the observance of tevilah avoids cancer of the womb, and the general tendency to give hygienic and not spiritual reasons for the mitzvot. One has only to peruse TRADITION to see how widespread this tendency is today." As an example of this tendency he cites "the explanation of David Shapiro for the blessing of fertility given to fish and fowl, but not animals."

I was amazed to see my name in connection with Rabbi Rabinowitz's criticism. First of all, I never knew that a blessing given by God to fish and fowl is a *mitzvah*. Secondly, I gave no "hygienic" reasons for the blessing to fish and fowl. My suggestion was twofold: 1. that animals were included within the extremes of man and fish who were blessed. Rabbi Rabinowitz's stricture certainly does not apply to this reason.

2. that the animals were excluded from the blessing because their prolificacy might constitute a danger to the human race. I do not know whether this can be considered a "hygienic" reason, but had Rabbi Rabinowitz troubled himself to look at the footnotes of this article (Spring-Summer 1973, page 64, note 10) he would have found that the latter "hygienic reason" was already anticipated by the Gaon of Vilna. I do not think a reason given by the Gaon of Vilna can prove anything about tendencies in TRADITION.

In all my writing I have never attempted to give "hygienic" reasons for mitzvot. Nevertheless, I would not deprecate such an attempt. Keeping the body in good health is indispensable for the study of Torah and performance of mitzvot. As Maimonides points out in Hilkhot Deot and Hilkhot Teshuvah (in the ninth chapter) the Torah is concerned about man's bodily health, as well as his spiritual welfare. It is highly improbable that what the Torah forbids might be physically beneficial to man, even if physical well-being is not the primary reason for such an interdiction (except of course in cases of pikuach nefesh). It is well to remember that the Torah

has "seventy facets" (shivim panim la-Torah). (For a purely "hygienic" law see Deut. 23:14. Cleanliness is an aspect of holiness and Godliness.)

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JUDAISM AND FREUD

To the editor of TRADITION:

In the Fall, 1973 issue of TRA-DITION Mr. Andy Solomon attempted to provide a basis for conformity between Freudian conceptions of human nature and those of Judaism. However, notwithstanding the occasional similarities between the two that do arise, the most profound contradictions between them was ignored. Freud, on the one hand, inexorably wedded man to a quest for sensual fulfillment. All morality, societal conventions, mores, etc., he denegrated to the position of either means to achieve those erotic ends, or to stipulations of a social contract that was engineered as a concession for survival. Morality is thus declared to be merely a renunciation of that which man essentially yearns to do, but with what he cannot get away with doing.

Torah morality, on the other hand, surfaces in sharp contrast to such a formulation. Justice, righteousness, goodness are considered objective realities that continue to exist regardless of the machinations of the individual or of society. These are the transcendent goals for which all men must strive. Although individuals often fall short of their complete realization, or worse, entirely ignore them, prefering to gratify their baser passions, such lapses are not regarded by Jewish morality to constitute the natural state of human beings, as did Freud. Quite the contrary, with adequate education, man recognizes that the genuine and most desired mode of existence is that of the pristine holiness defined by the Torah.

Rather than positing a Freudian dichotomy of Eros and Thanatos within Jewish thought, it may be more accurate to cite the differences between the vetzer tov and the vetzer hara: the former being those drives within man which seek to further the realization of his holy potential, the latter, those that tend to achieve the obverse. It is difficult to understand Mr. Solomon's statement that these inclinations have moral value only in societal terms, but are neutral intra-psychically. This is indeed Freud's conception of them. However, are we to accept the implication of this notion that all morality is mere practical convention?

The examples that were provided for the existence of Thanatos in Jewish literature are questionable. For instance, the statement of R. Meir mentioned in Midrash Rabbah that "and behold it was very good," (Gen. 1:31) as referring to death was cited as alluding to the positive function of death in the universe (and thus, by implication, to Thanatos). Given such statements as that of Isaiah (25:8), "He (God) will swallow

up death forever," as well as the general belief in tichyat hametim, all indicating that death is but a temporary flaw in reality that will be rectified during the final redemption, the utility of death is dubious. Additionally, Radal, commenting on this statement in the Midrash, explains that "vihinai tov" refers to haolam hazeh, while "me'od" refers refers to haolam habah. In view of the subsequent statements of the Midrash on this phrase, all elucidating similar contrasts between aspects of reward and punishment (gan eden and gehinnom, yetzer tov and yetzer hara. mal'ach hachaim and mal'ach hamavet, etc.) it would appear that R. Meir's comment bears not upon the intrinsic utility of death, but rather upon its value as the ultimate enforcer of morality.

Further objection may be raised to the analysis of Eros. Mr. Solomon states that an examination of the debate of R. Judah and Antoninus regarding the time of the placement of the neshamah in man compels one to interpret that term as referring to the libido rather than the soul. Since he provides no evidence for such an assertion. one must wonder what are the grounds for such a compulsion. His basis for the contention that Eros pervades Jewish thought involves a concept that is in reality entirely antithetical to it. Noting that Freud believed thought to be sublimated energy (i.e., erotically motivated), Mr. Solomon argued that the Platonic and Aristotelian notion, which was promulgated by Maimonides (that the highest form of love is the knowledge of

God), attests to the validity of the Freudian position within Judaism. The use of the word da'at to indicate both intellectual and carnal knowledge supposedly provides further evidence for this hypothesis.

Firstly, it should be recognized, no matter to what extent one expands the notion of Eros from its sensual immediate connotation. that the Greek and Maimonidean conceptions of the total contemplation of the Divine are utterly divorced from any notion of eroticism. The extreme antonimity of man's intellectual faculties as opposed to his physical functions is repeatedly stressed by these thinkers. Contemplation of the Divine can be achieved only by rising from the plateau of the sensual to that of the intellect.

Secondly, the context in which da'at was discussed vividly emphasizes the contrary conceptions held by Freud and Judaism. The Jewish understanding of leda'at does not begin with the dictates of sexuality and derive from them the logic of wisdom, but rather, vice versa. The most fulfilling sexual relationship, Judaism proclaims, is not one of pure Eros, but one tempered and directed by pure knowledge (i.e., morality). Thought, not sensuality, is the foundation of the Torah weltanschauung.

Incidentally, a more cogent proof for the presence of Eros might have been the statement of Midrash Koheteth Rabbah (3:11, 3) that "if not for the yetzer hara man would not build a house, nor marry, nor rear children." Yet, this observation is also best understood within the framework posed by the

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two contrary yetzirot. These mundane activities, although they may be prompted by selfish desires must be regulated by the yetzer tov (moral judgment). While they constitute some of the most essential of human actions, they are nonetheless the most temporal ones. They are not concomitant with the da'at of the Divine in the Maimonidean sense.

One cannot deny the contribution of Freud to the realm of psychology. His views, however, are not inherently transferable to the field of ethics and morality. To attempt to reconcile this aspect of them with Judaism results in a denegration of both.

> Isaac Lakritz Milwaukee, Wisconsin

TEMPLE MOUNT

To the editor of TRADITION:

Let me state for the record and in reply to Yisroel Medad (TRA-DITION, Fall 1974) that no relevant material was "excluded" from the review of the literature pertaining to guard duty on the Temple Mount. The review dealt with halakhic ramifications of guard duty at the Temple site whatever its precise location may be. The question of establishing the precise boundaries of the Temple Mount is a different matter entirely.

With regard to a given topic selected for review it has been my practice to refer to all items in the periodical literature insofar as they are known to me. To be sure the reviewer's own views are expressed at times, but those views are never a factor effecting inclusion or exclusion of pertinent material.

> (Rabbi) J. David Bleich New York, New York